

**PRELIMINARY SITE CHARACTERIZATION REPORT
ENCINITAS I BURN DUMP
ENCINITAS, CALIFORNIA**



PREPARED FOR



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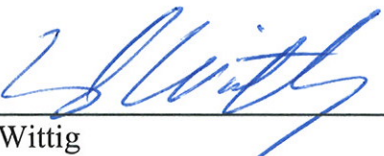


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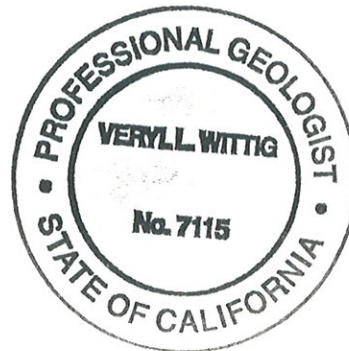
18 January 2006

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I certify that this document and all attachments presented in this report are accurate and complete. This report was prepared by the staff of GeoSyntec Consultants under my supervision to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who are directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Veryl Wittig
California Professional Geologist No. 7115



1-18-06
Date



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1. INTRODUCTION

1.1 Terms of Reference

This report presents the results of the field investigation conducted for the Encinitas I Burn Dump (the site). This report was prepared by GeoSyntec Consultants (GeoSyntec) for the County of San Diego, Department of Public Works, Landfill Management (the County) in accordance with Task Order No. 04 of Contract No. 505184. This report was prepared by Mr. Christopher Gale and Ms. Rebecca Flynn, and has been reviewed by Mr. Edward Zielanski, P.E. and Mr. Veryl Wittig, P.G., C.Hg., in accordance with the peer review policy of the firm.

1.2 Background and Purpose

The County is currently evaluating potential opportunities for redevelopment of the site. To assist in their evaluation, the County requested that GeoSyntec develop a scoping-level plan for the mitigation of existing burn debris materials at the site. GeoSyntec has previously reviewed available project documents and prepared a summary letter report of findings for the County [GeoSyntec, 2005a]. The summary included discussions on historical site use, current site use, and the presence of burn debris at the site. Due to a lack of available characterization data, GeoSyntec recommended that a subsurface investigation be performed at the site to characterize the nature and extent of burn debris. The purpose of this report is to present a Preliminary Site Characterization of the Encinitas I Burn Dump.

1.3 Limitations

This characterization of the former burn dump at the site has been performed in accordance with current practices and the standard of care exercised by scientists and engineers performing similar tasks in this area. The conclusions contained in this report are based solely on the analysis of the conditions observed by GeoSyntec personnel and as reported by regulatory agencies and other named sources. We cannot make any assurances concerning the completeness of the data presented to us.

No warranty, expressed or implied, is made regarding the professional opinions expressed in this report. If actual conditions are found to differ from those described in this report, or if new information regarding the site is obtained, GeoSyntec should be notified and additional recommendations, if required, will be provided. GeoSyntec is not liable for any use of the information contained in this report by persons other than the County of San Diego, or use of information in this report for any purposes other than referenced in this report without the expressed, written consent of GeoSyntec.



1.4 **Report Organization**

The remainder of the report is organized as follows:

- Section 2, “Site Description and Background,” describes the site location, features, physical setting, outlines a history of site usage, and regional geologic and hydrogeologic conditions;
- Section 3, “Site Characterization Field Activities,” describes the scope of work, investigation methods, soil sampling procedures, analytical parameters, and sample handling procedures;
- Section 4, “Summary of Results,” presents and interprets the analytical results collected from the trenches, test-pits, and hand-auger soil samples during delineation activities;
- Section 5, “Conclusions,” discusses the findings of the site characterization;
- Section 6, “Summary,” presents a summary of the important results and conclusions obtained during the site investigation;
- Section 7, “Recommendations,” provides recommendations to more fully characterize the site;
- Section 8, “References,” provides a list of references used in preparing this report.



2. SITE DESCRIPTION AND BACKGROUND

This section presents site background information, including: site location, site features and physical setting, regulatory framework, regional geology and hydrogeology, and site history.

2.1 Site Location

The Encinitas I Burn Dump is generally located in the northern ½ of the northeast ¼ of Section 14, Township 13 South, Range 4 West, with respect to the San Bernardino Baseline and Meridian. It is located northeast of the intersection of Via Molena and El Camino Real in the City of Encinitas, County of San Diego, California (Figure 1). Property occupied by the Encinitas I Burn Dump historically encompassed approximately 20.4 acres of land located on 8 contiguous parcels (Figure 2). Operations at the site observed in aerial photos suggested most of the landfilling activities occurred in the central to east-central portion of the site and that some parcels, especially in the western portion of the site, appeared to be buffer properties or used primarily for site access. Table 1 summarizes important information about each of the parcels. For the purposes of this report, the “site” consists of those parcels identified by current Assessor Parcel Numbers (APNs) 259-121-36 and 259-121-37, which encompass approximately 12.6 acres.

2.2 Physical Setting and Site Features

2.2.1 Physical Setting

The site is situated in a commercial and residential district of Encinitas. The site is bounded to the north and east by residential subdivisions. It is bordered to the south by a retail shopping center. To the west, the site is bordered by the San Diego County Sheriff's Encinitas Substation. West of the substation is a retail/commercial center and El Camino Real. Approximately one third of the site is presently developed as a vehicle storage facility for a local auto dealership and as a recycling center. The remainder of the site is presently undeveloped land that is vegetated with grasses, shrubs, and trees. Photographs of the site are included in Appendix A.

2.2.2 Site Features

A portion of the site is paved with asphalt and is used as a vehicle storage facility (Figure 3). The vehicle repair/storage facility consists of a garage, a pavilion, and paved parking areas for approximately 350 automobiles. The garage and pavilion appear to be of steel construction. This facility appears to be used by the auto dealership for the preparation of vehicles for delivery. Access to the vehicle repair/storage facility is



provided by a paved driveway extending from Via Molena. GeoSyntec was not provided access to the vehicle repair/storage facility, and did not conduct an inspection of the facility, and are unable to comment on the potential use and/or storage of hazardous materials within it, which was outside of the scope of work.

A community recycling center is currently operating in the southeast portion of the site. The recycling center consists of an asphalt-paved parking area, a single-story administration building, storage containers, and waste disposal dumpsters. Access to the center is provided by a driveway extending along the southern property boundary. GeoSyntec observed the collation and storage of plastic, glass, metals, and paper wastes. GeoSyntec was not provided access to the community recycling center and did not conduct an inspection of the recycling center, and we unable to comment on the potential use and/or storage of hazardous materials within this facility.

The undeveloped portions of the site are surrounded with chain-link fencing. Access to the undeveloped property is provided via padlocked access gates located west of the garage, east of the pavilion at the edge of the parking area, and at the northeast corner of the site at Shields Avenue. The easterly portion of the site is extensively vegetated, while the westerly portion has less vegetation.

GeoSyntec observed indications of burn ash-containing materials including melted and deformed glass pieces, and grayish-brown discolored soil that contrasted with the lighter-colored native soil formations. The glass pieces were found generally in the unpaved areas surrounding the vehicle storage facility at the site. Indications of burn ash-containing materials were also observed in landscape planters and slopes surrounding the Sheriff's substation and in slopes along the access road to the recycling center.

2.2.3 Topography

The site is generally situated on two terraces located upgradient of El Camino Real (Figure 3) at elevations ranging from approximately 220 to 270 feet above mean sea level (msl). The terraces are surrounded by relatively steep slopes (approximately 2:1, horizontal: vertical) on the all sides that rise from the adjoining properties north, east, and south of the site. The western terrace contains the vehicle storage facility and lies at a lower elevation than the eastern terrace. The eastern terrace consists of presently undeveloped land and is approximately 10 to 20 feet higher in elevation. It appears that surface water drainage on the site occurs primarily in a southwesterly direction, toward Via Molena and El Camino Real. In addition, drainage in the northeast corner of the site appears to flow east-northeast along the access road to Shields Avenue.



2.3 Regulatory Framework

The County of San Diego LEA and the California Integrated Waste Management Board (CIWMB) derive their authority to regulate burn dumps from California Public Resources Code Section 44100. CIWMB LEA Advisory #56 (the Advisory) provides a process for evaluating and remediating burn dump sites (CIWMB, 1998). The California Department of Toxic Substances Control (DTSC) Protocol for Burn Dump Site Investigation and Characterization provides additional guidance for similar investigations [DTSC, 2003]. The procedures specified in the DTSC protocol were implemented during the site investigation and preparation of this Preliminary Site Characterization report.

2.4 Geology and Hydrogeology

The site is located in the Peninsular Range geomorphic province in San Diego County. The site and surrounding area is underlain predominantly by Eocene-age Torrey Sandstone. The Torrey Sandstone consists primarily of medium-grained, well-sorted, sandstone containing lenticular cobble gravels and minor clayey siltstone beds. Underlying the Torrey Sandstone is the Eocene-age Del Mar Formation [Gastil, 1977].

The site is located in the Batiquitos Hydrologic Subarea (4.51) of the San Marcos Hydrologic Area of the Carlsbad Hydrologic Unit. Groundwater in the vicinity of the site in the Batiquitos Hydrologic Subarea is designated as having no existing beneficial uses [RWQCB, 1994]. Groundwater in the vicinity of the site is reportedly encountered at an elevation of approximately 170 ft above Mean Sea Level (MSL) based on data provided by Geotracker.

2.5 Site History

The site reportedly operated from 1944 until 1966 and was used for the burning and landfilling of residential waste, including household rubbish, tree trimmings, and other non-combustibles [Division of Forestry, 1963; LEA, 1984]. Based on a review of historical aerial photographs, the site was generally clear of vegetation and exhibited signs of burn dump operations by 1960. It appeared that approximately 20 acres were cleared during the period of active burn dump operations, covering nearly the entire extent of the eight parcels depicted on Figure 2. However, as previously indicated in Section 2.1, operations involving landfilling of waste appeared to be primarily limited to the central portions of the site, and that some of the 20 acre site appeared to be used for access or as a buffer property. In addition, the available information did not document the extent of burn material buried at the site.

The site remained inactive until the early 1970s, when the site was re-graded during the construction of the County Encinitas Road Station. Grading or building plans



for the construction of the Encinitas Road Station were not available for review. However, burn ash-containing material may have been consolidated into smaller areas during the grading operations and used to form the east and west terraces (Figure 3) [LEA, 2004]. Historical aerial photographs indicate that structures at the Encinitas Road Station included a garage, fuel dispensing equipment, and a residence (Table 2). Three 10,000-gallon underground storage tanks (USTs) were installed in 1974 [DHS, 1988] and removed in 1994 [URS, 1999].

The parcels adjoining the site were developed in the 1970s and 1980s. The homes along Turner Avenue and Shields Avenue are visible in an aerial photograph from 1973, as were the initial commercial developments along the east side of El Camino Real. The County Sheriff's Encinitas Substation is visible in a photograph from 1978. By 1985, the recycling center, residential homes north of the site, and commercial development south of the site were all visible.

The Encinitas Road Station was closed in the early 1990s. The residence was occupied until 1999 and was demolished in 2002 [LEA, 2004]. There were no available records that provided details regarding the construction or demolition of the residence or disposition of the debris generated after demolition. The site was approved for use as a vehicle repair/storage facility by the LEA in 2000 [County, 2000], and currently remains in operation. The recycling center also remains in operation.

2.6 Previous Investigations

2.6.1 Burn Dump Investigations

During the previous review of project documents, GeoSyntec identified limited burn dump investigation information for the site [GeoSyntec, 2005a]. It appeared that the initial investigation of burn ash-containing material at the site was performed by the County Engineer in 1971 [County, 1971]. This investigation consisted of drilling at least 38 test borings at the site to determine apparent thickness and extent of burn ash-containing material. Though a complete report of the investigation was unavailable, the results indicated between 1 and 5 feet of overburden (assumed to be fill soil) were present. The chemical quality of the burn materials was not characterized during the 1971 County assessment.

Since 1991, the LEA has performed routine inspections of the site. LEA personnel perform visual reconnaissance of the site and record their observation in site inspection reports [LEA, 2004]. The LEA inspections included notices of non-compliance (pertaining mostly to site security), erosion, and rodent control issues. The reports also indicate that indications of burn ash-containing material were visible across much of the undeveloped portions of the site. GeoSyntec did not identify any documents



that indicated site investigations or other enforcement actions were performed as a result of the LEA site inspections.

In December 1999 and January 2000, the County requested that a limited geophysical survey be performed to determine the extent of burn ash-containing material. The results of the geophysical survey indicated that the depth of burn ash-containing material may be up to 25 to 30 feet in some of the terraced areas [SSS, 2000]. In general, the greatest concentration and thickness of burn ash-containing material was interpreted to be in the unpaved area surrounding the vehicle repair/storage facility. However, surveys were not performed in the paved areas, so the presence or thickness of burn ash-containing material in those areas was not evaluated. The results of the geophysical survey also indicate the potential for burn ash-containing materials to be located outside the site boundaries to the north (in the slope behind adjacent residences), west (in the slope facing the Sheriff's Substation), and south (in the slope facing the commercial development).

2.6.2 UST Investigations

The former Encinitas Road Station contained three 10,000 gallon USTs that were installed in 1974 [DHS, 1988]. Two of the USTs were used to store diesel fuel and one was used to store unleaded gasoline. In 1986, the County of San Diego Deputy Engineer filed a permit application to remove a 10,000 gallon diesel fuel UST [County, 1986]. An inspection report from 1988 indicates that a 10,000 gallon diesel fuel UST in the southern portion of the site had been temporarily closed [DHS, 1988]. Three 10,000 gallon USTs were removed in January 1994. Based on sampling performed at the time of the removal, it was determined that an unauthorized release (#T2828/#H20245-001) had occurred [DHS, 1994]. Reportedly, burn ash was not encountered in the former UST excavations. The results of sampling and/or laboratory analysis were not available.

In 1999, the County contracted URS Greiner Woodward Clyde, to perform an environmental investigation in the vicinity of the 3 USTs removed in 1994. A complete copy of this investigative report was not available for review, however, it is understood that site characterization was performed based on data collected from analytical laboratory testing of soil and groundwater samples [URS, 1999]. The results of site characterization indicated that releases from the USTs resulted in minor impacts to site soil and groundwater [DEH, 1999]. Based on the limited information provided to GeoSyntec regarding the URS investigation, burn ash was apparently not encountered during their investigation. The site was granted closure by the DEH in December 1999.



3. SITE CHARACTERIZATION FIELD ACTIVITIES

The following sections describe the surface and subsurface methods of investigation, soil sampling procedures, analytical parameters, and sample handling procedures followed at the Encinitas I Burn Dump.

3.1 Scope of Work

The objectives of the preliminary site characterization were to:

- Evaluate the cover thickness at the site;
- Delineate the lateral and vertical extent of burn debris at the Site;
- Evaluate potential impacts to surface soil, and native soil beneath the site;

This site characterization was conducted in accordance with Task Order No. 04 of Contract No. 505184, dated 16 August 2005, which was developed using guidance from DTSC [DTSC, 2003]. The characterization was generally performed in the unpaved areas surrounding the vehicle repair/storage facility.

Prior to commencing fieldwork, a site-specific health and safety plan was prepared. The health and safety plan addressed potential site hazards and administrative or engineering controls for maintaining worker health and safety. Based on the nature of the waste and site conditions, fieldwork consisted of a surface geophysical investigation, advancing direct push borings, advancing hand auger borings to assess the amount of cover material, excavating test pits, and collecting/analyzing surface and subsurface soil samples.

GeoSyntec subcontracted Subsurface Surveys and Associates (Solana Beach, California), Vironex (Santa Ana, California), and B.L. Hall, Inc. (Pasadena, California) to perform the subsurface investigations.

3.2 Geophysical Survey

On 1 September 2005, Subsurface Surveys & Associates performed a surface geophysical survey using seismic refraction. The purpose of the geophysical survey was to evaluate the subsurface profile and determine the approximate depths of fill and native soil. Two seismic lines in the vicinity of the test pits comprised the geophysical survey. The orientation of the seismic lines and the results of the seismic survey are provided in Appendix B.



In addition to the seismic survey, Subsurface Surveys performed utility clearance in the vicinity of the proposed test pit and boring locations using ground penetrating radar and electromagnetic locators.

3.3 Soil Sampling Methodology

Direct push and hand-auger soil sampling was conducted on 12 September 2005 at the approximate locations indicated on Figure 4. Test pit excavations were conducted on 14 and 15 September 2005 at the approximate locations indicated on Figure 4. The purposes of the investigations were to evaluate the vertical and horizontal extent of burn ash-containing materials at the site, and to evaluate the approximate thickness of cover soil placed over the burn ash-containing materials.

Soil samples were generally collected at the surface, within the debris/burn ash, and native soil underlying the debris/burn ash when native soil was encountered. Soil was described and characterized using ASTM Standard D 2488-00 [ASTM, 2000], and recorded on field soil boring and test pit logs. Waste and native soil samples were screened in the field with a photo-ionization detector (PID). The soil descriptions and results of PID screening were recorded on the boring and test pit logs (Appendix C). Soil samples were collected in accordance with standard United States Environmental Protection Agency (USEPA) sampling protocol and Site Assessment and Mitigation (SAM) manual guidelines [DEH, 2004].

3.3.1 Direct Push Soil Sampling

Ten direct push borings were advanced to depths up to 20 feet bgs at the locations indicated on Figure 4. At each boring location, the soil was continuously sampled from the ground surface, through the debris/burn ash, and into native soil or until refusal was encountered. Soil samples collected using direct push sampling were collected in clear acetate liners and handled in accordance with the procedures outlined in Section 3.5. At the conclusion of sampling borings were backfilled with cement-bentonite grout.

3.3.2 Hand Auger Sampling

Twenty-one borings were excavated to depths up to 3.5 feet bgs, using a stainless steel hand auger, to facilitate subsurface sample collection and to determine presence and approximate thickness of cover soil (Figure 4). Surface samples were collected from ten hand auger locations (Table 3). Hand auger locations were excavated until burn debris (such as glass and ceramic fragments) was encountered or refusal occurred. Cover thickness encountered in each hand auger boring is summarized in Table 4. Materials excavated from hand auger borings were placed in roll-off bins or temporarily stockpiled on heavy-duty plastic sheeting to reduce the likelihood of contaminating surface soils



with burn ash constituents. Soil samples were collected from the auger, placed in 4-ounce glass sample jars, and handled in accordance with the procedures outlined in Section 3.5. At the conclusion of sampling borings were backfilled with cement-bentonite grout.

3.3.3 Test Pit Excavation

Nine test pits were excavated to depths up to 19 feet bgs using a backhoe to facilitate subsurface sample collection to determine the nature and extent of waste (Figure 4). Materials excavated from test pits were placed in roll-off bins or temporarily stockpiled on heavy-duty plastic sheeting to reduce the likelihood of contaminating surface soils with burn ash constituents. Each test pit was logged and photographed to document the nature and thickness of the cover material, waste material, native soils, and observations of soil samples being collected. Soil samples were collected from the backhoe bucket, placed in 4-ounce glass sample jars, and handled in accordance with the procedures outlined in Section 3.5. Fugitive dust was controlled during the investigation by spraying the working area and temporarily stockpiled soil with potable water. At the conclusion of sampling test pits were backfilled with imported soil and compacted with the backhoe.

3.4 Analytical Parameters for Soil Samples

Analyses were performed by Calscience Environmental Laboratories, Inc. in Garden Grove, California, a California Department of Health Services certified laboratory. Soil analytical certificates are included as Appendix E. All soil samples (64 total) were analyzed for total lead by EPA Method 6010 and pH by EPA Method 9045C. The 7 samples with the highest total lead concentrations were additionally analyzed for:

- Polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8310;
- Total petroleum hydrocarbons (TPH) by EPA Method 8015;
- Volatile organic compounds (VOCs) by EPA Method 8260B; and
- Polychlorinated biphenyls (PCBs) by EPA Method 8082.

Two surface and two burn ash samples were selected based on field observations, and also analyzed for dioxins and furans by EPA Method 8290. Soil sample identification numbers and the selected analyses are summarized in Table 3.

3.5 Sample Handling

The following sections detail methods that were used for sample labeling, identification, containerizing, preservation, transportation, and maintaining proper chain



of custody. Soil samples were handled in accordance with standard EPA sampling protocol and SAM manual guidelines.

3.5.1 Sample Labeling and Identification

Each sample container submitted for laboratory analysis had a label affixed to identify the job number, sampler, date, time of collection, and sample identification.

Each sample was designated with a unique identification number. The sample identification number included information to identify the sample location, the sample type, and the depth of the sample, if applicable. The following abbreviations were used to indicate the following:

Project Site:	EB (for Encinitas I Burn Dump)
Direct Push Soil Borings:	B-(boring number)
Test Pits:	TP-(test pit number)
Hand Auger:	HA-(hand auger boring number)

For example, a soil sample designated, EB-B1-0.5 would represent a sample from Encinitas I Burn Dump, boring 1, from a depth of 0.5 feet bgs (0.5 is a surface sample). A test pit designated, EB-TP1-5 would represent a sample from Encinitas I Burn Dump, test pit 1, from a depth of 5 feet bgs. A hand auger boring samples collected from location 1, from a depth of 4 feet bgs would be designated EB-HA1-4.0.

3.5.2 Sample Containers and Preservation

Soil samples collected during hand auger and test pit sampling were placed in laboratory-supplied 4 oz. wide-mouth glass jars. Soil samples from direct push boring were collected in acetate sleeves and capped with Teflon-lined caps. No preservatives were necessary for the samples collected during this investigation.

3.5.3 Sample Transportation

Sample containers were labeled, sealed in plastic bags, stored on ice, and transported in a cooler to the laboratory in accordance with chain-of-custody procedures.

3.6 Field Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) for fieldwork refers to methods to check the quality of the field techniques. Field instrumentation, such as the PID, was calibrated in accordance with the manufacturer's instructions at the beginning of each field day.



3.7 Decontamination of Sampling Equipment

Reusable sampling equipment (trowels, hand augers, etc.) were cleaned prior to each use by the “three-bucket wash” method. Sampling equipment was first washed in a solution of Alconox® and potable water, rinsed with potable water, and then final rinsed with distilled water, and allowed to air dry.

Decontamination of the backhoe used during test pit excavation was performed by B.L. Hall. The backhoe bucket was washed in a solution of Alconox® and potable water and rinsed with potable water. Decontamination was performed over existing soil stockpiles to minimize the potential for impacting site soil with decontamination fluids.

3.8 Investigation Derived Waste

Soil cuttings, acetate liners, and decontamination water were placed in roll-off bins onsite. Materials excavated from the test pits were placed either in roll-off bins or stockpiled on plastic sheeting onsite. Soil stockpiles were covered with plastic sheeting and weighted with sandbags to prevent wind uplift. Stockpiles and roll-off bins have been temporarily stored at the site pending characterization to evaluate handling/disposal options.



4. SUMMARY OF RESULTS

The following sections summarize the physical findings and soil analytical results of the waste characterization performed at the Encinitas I Burn Dump.

4.1 Subsurface Physical Conditions

The following sections describe the results of the subsurface field explorations conducted at the Site (Figure 4). The seismic survey report is presented in Appendix B. Test pit and boring logs are presented in Appendix C.

4.1.1 Geophysical Survey

On 1 September 2005, Subsurface Surveys & Associates performed a surface geophysical survey using seismic refraction to determine the thickness of cover material and burn ash overlying native soil at the Site. Two seismic lines in the vicinity of the test pits comprised the geophysical survey. The upper layer detected in the geophysical survey (seismic velocities ranging from approximately 1,500 to 1,700 feet per second) is interpreted to consist of uncompacted fill (cover material and/or burn ash), and is reported to range in thickness from 4 to 18 feet averaging approximately 12 feet thick. Underlying the native soil is the Torrey Sandstone (seismic velocities ranging from approximately 2,500 to 2,800 feet per second).

4.1.2 Hand-Auger Borings

Twenty-one hand-auger borings were advanced in the perimeter areas of the east and west terraces and the area north of the vehicle repair/storage facility to assess the presence of cover material overlying burn ash-containing material on the site. Two types of cover material were generally encountered in hand auger borings advanced at the site; cover material with no indications of burn ash and cover material containing indications of burn ash (e.g., melted glass fragments). Hand-auger borings were terminated when visible indications of burn ash (such as melted or deformed glass, and ceramic fragments) were first encountered. The amount of cover material containing no visible indications of burn ash varied from less than 0.5 to 4 feet in thickness (Table 4, and Figure 5).

4.1.3 Direct-Push Borings

Ten direct-push borings were advanced to depths of up to 20 feet bgs throughout the site to evaluate the nature and vertical extent of burn ash at the site. Similar to hand auger borings, cover material with no indications of burn ash and cover material with indications of burn ash comprise the two types of cover material encountered in direct-push borings advanced at the site. In two borings (EB-B2 and EB-B3), burn ash was not



encountered, but indications of burn ash (such as glass fragments) were encountered in near-surface soil. The cover material overlying burn ash in the remaining seven direct-push boring locations ranged from approximately 2 to 9.5 feet thick (Figures 6 through 8). Burn ash encountered in direct push borings was generally composed of dark silt mixed with glass, plastic, assorted metal fragments, and ceramic debris. Burn ash in borings in the southern portions of the eastern terrace also contained some partially burned organic debris. Burn ash ranged in thickness from 2 to 15.5 feet in direct push borings. In general, the thickness of burn ash was found to be greater in borings advanced on the eastern terrace than on the western terrace. Approximately 2 feet of burn ash was observed in soil boring EB-B1 along the southern property line, suggesting burn ash may extend offsite to the south. The presence of glass fragments and other debris were logged in borings EB-B2 and EB-B3, but burn ash was not encountered. Approximately 4 feet of burn ash was observed in soil boring EB-B6 along the northern property line, suggesting burn ash may extend offsite to the north.

4.1.4 Test Pit Excavations

Nine test pits were advanced at the site to evaluate the nature and vertical extent of burn ash at the site. Photographs of materials encountered during test pit excavation are provided in Appendix A. Five test pits were advanced along the western property line (TP-1 through -5), and four test pits were advanced along the northern property line (TP-6 through -9). Test pits were excavated to depths ranging from approximately 8.5 to 19.0 feet bgs.

Cover material with indications of burn ash was encountered in test pits excavated at the site. Cover material was encountered in test pits at the site to depths ranging from 1.75 to 6 feet bgs. Cover material in the test pits generally consists of unconsolidated to semi-consolidated, poorly graded sand mixed with some glass fragments and other debris.

Burn ash encountered in the test pits was unconsolidated and contained glass, wire, pipes, tires, plastic, brick, and some ceramic debris (typical of burn ash-containing materials). Burn ash was also found to be mixed with white chalky material, blue wax-like material, and unburned building/demolition materials in the test pits. Most of the glass and metal were not fused by heat, indicating low-temperature burning, typically indicative of small-batch burning. Burn ash intermixed with brownish-gray to grayish-brown sand and silt was encountered to depths ranging from approximately 1.75 to over 19 feet bgs. In test pit EB-TP3, the thickness of burn ash could not be determined because native soil was not encountered at a depth shallower than the depth of excavation limits of the backhoe (19.5 feet). The thickness of burn ash was not determined in test pit EB-TP9. Excavation of test pit EB-TP9 was terminated at approximately 11 feet bgs when unidentified, white, fibrous-like building/demolition material was encountered. It was



believed that this material may be asbestos-containing and therefore, the test pit was terminated to reduce the possibility of exposure. A northern-dipping contact between burn ash and cover material observed in most of the test pits excavated in the northern portion of the site suggests burn ash is present in the steep slope along the northern site boundary and that burn ash may extend offsite to the north. The thickness of burn ash encountered in the test pits excavated along the western property boundary was similar in each of the test pits. Based on the thickness of burn ash (approximately 7 to 15 feet thick) encountered along the western Site boundary, burn ash is likely present in the steep slope along the west site boundary, and may extend offsite to the west. Indications of burn ash were also observed at the surface of the slope along the western site boundary.

Native soil was encountered in the test pits beneath the burn ash-containing material at depths ranging from 8.5 to 19 feet bgs. Native soils were stable during test pit excavation and were found to consist of consolidated, light yellowish brown to very pale brown, medium grained, poorly graded sand deposits. Native soil deposits encountered at the site did not contain burn debris materials.

4.2 Soil Analytical Laboratory Results

The following sections present the results of the soil sample analytical laboratory testing. The seven soil samples collected from the site with the highest total lead concentrations were additionally analyzed for TPH, VOCs, PAHs, and PCBs. In addition, two surface and two burn ash samples were also analyzed for dioxins and furans. A sample matrix of laboratory analyses is presented in Table 3. Laboratory analytical reports are presented in Appendix D.

Soil sample analytical results were compared to United States Environmental Protection Agency (USEPA) region IX Preliminary Remediation Goals (PRGs) for residential properties to evaluate potential human health risks [USEPA, 2004].

4.2.1 Lead

All soil samples collected at the site were analyzed for total lead. Lead concentrations in 23 soil samples collected from the ground surface to 1 foot bgs (surface samples, some of which contain indications of burn ash) ranged from 3.6 to 143 mg/kg with a mean plus an upper 95 percent confidence interval of 66.8 mg/kg. Therefore, the soil sample with a lead concentration of 143 mg/kg appears to be an outlier and unrepresentative of lead concentrations in surface soil at the site. None of the surface soil samples collected at the site contained total lead at a concentration exceeding the State of California modified (Cal-Modified) residential PRG of 150 mg/kg (Table 5).



Total lead concentrations in 9 samples collected from subsurface cover soils (generally at depths of 1.5 to 5 feet bgs) overlying burn ash encountered at the site ranged from 1.65 to 171 mg/kg. Only one of the subsurface cover soil samples (EB-B9-2.5) contained total lead at a concentration exceeding the Cal-Modified residential PRG.

Total lead in 16 burn ash samples collected from the site ranged from 8.97 to 1,890 mg/kg. Three samples (EB-B5-5.5, EB-B6-7.0, EB-B8-15.0) contained lead at concentrations that exceed the total threshold limit concentration (TTLC) regulatory limit of 1,000 mg/kg, which would classify waste in the vicinity of those samples as a California hazardous waste for disposal purposes. Eight of the sixteen burn ash samples exceeded the Cal-Modified residential PRG for lead, indicating the potential for human health threats exists.

Total lead concentrations in 15 soil samples collected from the native formation underlying burn ash encountered at the site ranged from 2.19 to 8.48 mg/kg. A soil sample collected at an approximate depth of 20 feet bgs from boring EB-B10 contained 77.6 mg/kg total lead. Although this sample was believed to be collected from native soil, the sample was collected immediately below the contact between burn ash and native soil. Based on the total lead concentration in this sample, it is apparent that some residual burn ash containing materials were present.

4.2.2 pH

All soil samples collected at the site were analyzed for pH (Table 5). In the 32 surface and subsurface cover soil samples, pH ranged from 4.28 to 8.25. In the 17 burn ash samples pH ranged from 6.61 to 8.49. pH in the 15 native soil samples ranged from 4.36 to 8.12. Following collection, soil samples were sealed, placed in an insulated cooler and maintained at a temperature of 4°C or less until extracted by the laboratory for analysis. Upon extraction the samples were analyzed immediately by the laboratory. Therefore, although soil samples were not analyzed within the 24 hour hold time for pH, the laboratory reported it is unlikely that the pH data quality were adversely affected.

4.2.3 Total Petroleum Hydrocarbons (TPH)

Seven soil samples with the highest total lead concentrations were additionally analyzed for extended range TPH. TPH concentrations in the soil samples ranged from 36 to 310 mg/kg with the greatest concentrations reported in the C₂₅ to C₄₄ carbon range (Table 6). The absence of significant concentrations of lighter hydrocarbons in the C₇ to C₂₄ carbon range is indicative of waste burning which results in residual concentrations of heavy hydrocarbons.



4.2.4 Volatile Organic Compounds (VOCs)

Seven soil samples with the highest total lead concentrations were additionally analyzed for VOCs. None of the soil samples selected for analyses contained detectable concentrations of VOCs (Table 6).

4.2.5 Polychlorinated Biphenyls (PCBs)

Seven soil samples with the highest total lead concentrations were additionally analyzed for PCBs. None of the soil samples selected for analyses contained detectable concentrations of PCBs (Table 6).

4.2.6 Polynuclear Aromatic Hydrocarbons (PAHs)

Seven soil samples with the highest total lead concentrations were additionally analyzed for PAHs. Fluoranthene was detected in samples EB-B8-15.0 and EB-TP5-4.0 at concentrations of 1,800 and 76 µg/kg, respectively. Pyrene was detected in sample EB-B5-5.5 at a concentration of 58 µg/kg. Both pyrene and fluoranthene were detected at concentrations below residential PRGs (2,300,000 µg/kg for both constituents).

4.2.7 Dioxins and Furans

Two surface soil samples (EB-TP6-1.0 and EB-HA2-0.5) and two burn ash samples (EB-B6-7.0, and EB-B8-15.0) were additionally analyzed for dioxins and furans (Table 7). The tetrachlorinated dibenzo-p-dioxin (TCDD) toxicity equivalency quotient (TEQ) in the four samples ranged from 4.13 to 499 parts per trillion (ppt), all of which exceed the residential PRG of 3.9 ppt [USEPA, 2004].



5. CONCLUSIONS

Based on the results of the limited site characterization at the Encinitas I Burn Dump, the following are concluded:

5.1 Constituents of Concern

Soil sample analytical results were compared to residential preliminary remediation goals (PRGs) to identify constituents that exceed PRGs as constituents of concern (COCs). Lead and dioxins and furans were the only constituents reported at concentrations exceeding their respective residential PRGs (Figure 9). As with most burn dumps, lead is the primary target analyte and typically accounts for the greatest portion of the calculated risk for a site.

5.2 Nature and Extent of Cover Material

Two types of cover material were encountered at the site during the limited site characterization: cover material with no indications of burn ash, and cover material with indications of burn ash. Cover with no indications of burn ash was found at various locations on site with thicknesses varying from 0 to 3 feet (Table 4). Cover with indications of burn ash was more prevalent than cover with no indications throughout the site and ranged in thickness from approximately 1.75 to 6 feet thick (Figure 5). The slopes surrounding the western and eastern terraces had visible glass and metal fragments, indicating the cover material in these areas is either absent or has been mixed with burn ash. The 32 cover soil samples contained lead at concentrations ranging from 1.65 to 171 mg/kg with a mean plus 95 percent confidence interval of 60.8 mg/kg. Therefore, the soil sample found to contain lead at concentrations exceeding residential PRGs (EB-B9-2.5, 171 mg/kg) does not appear to be representative of lead concentrations in cover soil at the site. Based on laboratory analytical results for samples collected during this investigation, surface/cover soil present over most of the site does not contain lead at concentrations exceeding residential PRGs.

Two cover/surface soil samples were additionally analyzed for dioxins and furans. The two surface soil samples additionally analyzed for dioxins and furans both had lead concentrations less than 30 mg/kg. However, both samples had TEQ concentrations exceeding PRGs. Therefore, lead concentrations do not appear to be related to dioxin and furan concentrations. Since both surface samples selected for analysis contained dioxins and furans exceeding residential PRGs, the potential exists for other surface samples to contain dioxins and furans exceeding residential PRGs. Therefore, the potential exists for threats to human health based on dioxin and furan concentrations.



5.3 Nature and Extent of Burn ash

Lead concentrations in soil samples collected from the burn ash ranged from 8.97 to 1,890 mg/kg. Eight of the burn ash samples contained lead at concentrations exceeding the Cal-Modified PRG, and 3 burn ash samples contained lead at a concentration that exceeds the TTLC regulatory limit of 1,000 mg/kg. Burn ash was often found to be mixed with silts and sands, likely a result of the mixing of burned materials with fill during site grading, which may account for lead in some burn ash samples at concentrations below the PRG.

Based on the results of the limited site characterization, burn ash is present throughout the eastern and western terraces, and the undeveloped area north of the vehicle repair/storage facility. Although previous investigations apparently did not encounter burn ash within the boundaries of the vehicle repair/storage facility, the presence of burn ash in the surrounding areas suggests burn ash may also underlay the vehicle repair/storage facility. Based on the depth native soil was encountered in the soil borings and test pits, waste appears to increase in thickness from the middle towards the perimeter of the bermed area in both the northern and western portions of the site. However, burn ash appears to be thickest in the south-central portion of the eastern terrace (Figures 6, 7, 8, and 10).

Based on the data collected during this investigation, the approximate volume of burn ash at the site was calculated to be between 45,000 and 50,000 cubic yards. However, the irregular topography of the native formation underlying the site and the limited number of borings advanced and test pits excavated suggests that the estimated volume of burn ash present at the site may be significantly less or greater than the approximate volume presented above. Furthermore, based on test pits excavated in the western and northern portions of the site, and borings advanced along the southern property boundary, it is apparent that burn ash may extend offsite, and possibly beneath the vehicle repair/storage facility (Figure 10).

5.4 Native Soil

Native soil was encountered underlying burn ash at depths ranging from 4.25 to 19 feet bgs. As previously mentioned, native soil was not encountered below the burn ash in test pit EB-TP3. Lead concentrations in all soil samples collected from native soils below the burn ash were below the Cal-Modified residential PRG. There are no indications that burn ash present at the site has adversely impacted native soils.



5.5 Data Limitations

Based on the data collected during this preliminary waste characterization, burn ash at the site may present risks to workers at the site, and to residents in areas adjoining the site. In addition, it is apparent that cover/surface soil in some portions of the site contains visible indications of burn ash, localized lead concentrations exceeding residential PRGs, and dioxins and furans at concentrations exceeding residential PRGs. Data collected during this investigation suggests that burn ash may extend offsite to the north, west, and possibly the south. Therefore, it is not possible to determine the full extent of burn ash related to the former Encinitas I Burn Dump based on the available data.

5.6 Human Health Risk Screening

Dioxins and furans and lead were both present at concentrations exceeding residential PRGs, indicating there is potential for adverse impacts to human health. PAHs were also detected, but at concentrations significantly lower than current PRGs. The primary exposure pathway for the COCs identified at the site (lead and dioxins and furans) would be through direct dermal contact, ingestion, or inhalation. These exposure pathways could be mitigated or remediated by clean closure, or installation of a “clean soil” cap to prevent exposure to the materials at the site containing COCs at concentrations exceeding PRGs.



6. SUMMARY

The Encinitas I Burn Dump was used for the burning of waste from 1944 to 1966. Burn ash, glass, wire, metal pipes, and some ceramic debris comprised the debris observed in soil borings and test pits excavated at the site. Most of the glass and metal fragments were not fused by heat, indicating low-temperature burning, typically indicative of small-batch burning.

Hand auger borings, soil borings, and test pit excavations revealed two types of cover material onsite; cover material without indications of burn ash, and cover materials with indications of burn ash. The slopes surrounding the western and eastern terraces had visible glass and metal fragments, indicating the cover material in these areas has been mixed with burn ash, likely during site grading operations during the period following active burn dump operations. Only one of the 32 cover soil samples contained lead at a concentration greater than the Cal-Modified PRG. The two cover soil samples analyzed for dioxins and furans both had TEQ concentrations greater than PRGs. Therefore, based on laboratory analytical results for samples collected during this assessment, localized surface/cover soil present at the site contains COCs at concentrations exceeding residential PRGs indicating the potential exists for threats to human health.

Based on the results of the site characterization at the Encinitas I Burn Dump, the constituents in surface and subsurface soil underlying the site likely to pose a threat to human health are lead, and dioxins and furans. An estimated 45,000 to 50,000 cubic yards of burn ash is present at the site.

The primary exposure pathway for the COCs identified at the site (lead and dioxins and furans) would be through direct dermal contact, ingestion, or inhalation. These exposure pathways could be mitigated or remediated by clean closure, or installation of a “clean soil” cap to prevent exposure to the materials at the site containing COCs at concentrations exceeding PRGs. Based on the volume of burn ash present at the site, clean closure would likely be cost-prohibitive and is therefore, not recommended. Installation of a “clean soil” cap at the site would be protective of human health and would reduce potential risks to an acceptable level so the property could be redeveloped for commercial or other non-sensitive land use. Redevelopment for residential or other sensitive land uses such as a pre-schools or day care centers would likely not be compatible with the presence of burn ash and COCs at concentrations exceeding PRGs. Potential redevelopment scenarios and remedial options are described in detail in a Mitigation Feasibility Study Report provided under separate cover (GeoSyntec, 2005b).



7. RECOMMENDATIONS

Based on the results of the preliminary site characterization at the Encinitas I Burn Dump, the following are warranted to further evaluate the extent and volume of burn ash at the site:

- Additional soil borings in the eastern portion of the site;
- Additional soil borings on the slope in the northern portion of the site; and
- Additional soil borings on the slope to the west of the site on the Sheriff's Substation property.



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TABLES



Table 1

Historical Site Use
Encinitas I Burn Dump
Encinitas, California

Historical APN (acres)	Current APN (acres)	Current Street Address ¹	Historical Owner ²	Current Owner ¹	Current Land Use ³	Current Zoning ³
259-121-10 (12.49)	259-121-36 (2.0)	<i>None</i> N. El Camino Real	County of San Diego, Road Station	County of San Diego	Other, Transportation	Public/Semi-Public
	259-121-37 (10.6)	135,137,139 N. El Camino Real				
259-121-16 (5.12)	259-121-16 (5.0)	175 N. El Camino Real	Encinitas Refuse Disposal Area	County of San Diego	Fire/Police Stations	Public/Semi-Public & General Commercial
259-121-17 (1.46)	259-121-32 (1.4)	191 N. El Camino Real	Greenwald/McDonald	El Camino Square, LLC	Arterial Commercial	General Commercial
257-062-18 (0.4)	259-062-18 (0.4)	211 N. El Camino Real	James E. and Shirley H. Stewart	Byron F. White 2001 Revocable	Arterial Commercial	General Commercial
257-062-19 (0.3)	259-062-19 (0.3)	207 N. El Camino Real	FCR Associates #1	John C. and Elizabeth Lemky	Arterial Commercial	General Commercial
257-062-20 (0.3)	259-062-20 (0.3)	199 N. El Camino Real	Encinitas Associates II	George Deluca	Arterial Commercial	General Commercial
257-062-21 (0.3)	259-062-21 (0.4)	195 N. El Camino Real	Warren & Carole Stetrone	Drake Properties, LLC	Arterial Commercial	General Commercial

1 – Source: City of Encinitas Planning and Building Department

2 – Source: “Closed Refuse Disposal Site Information”, 13 April 1984 [LEA, 1984]

3 – Source: County of San Diego Office of the Assessor

Table 2

**Historical Aerial Photograph Review
Encinitas I Burn Dump
Encinitas, California**

Date - Year	Flight, Photo ID	Site Features/Development	Surrounding Vicinity
1928 ¹	37D, 7	Native and undeveloped.	El Camino Real ("E.C.R.") and San Marcos Road (present-day Encinitas Boulevard) are visible.
4/11-1953 ¹	AXN, 8M-15	Indications of active burn dump operations. Access road from E.C.R. visible in western half of site. Indications of vegetation clearing in eastern half of site. East and south site boundaries are less defined. Potential grading in SE corner.	Encinitas Blvd appears to have been realigned. Parcels west of E.C.R. appears to be clear of vegetation.
7/29-1960 ¹	SDC T2, 3-61	Indications of active burn dump operations. Site appears to be generally clear of vegetation from E.C.R. to east boundary. Indications of grading across most of site. East and south site boundaries are well defined along property lines.	Indications of agricultural development on parcels west of E.C.R.
5/8-1967 ¹	GS-VBTA, 1-175	Few indications of burn dump activity. Vegetation (dark areas in photo) appears to be returning to western half and southern portion of site.	Shopping centers appear at intersection of E.C.R. and Encinitas Blvd. Agricultural operations not visible west of E.C.R.
10/9-1970 ¹	SDCo, 4-14	No apparent burn dump activity. Indications of vegetation returning to site.	No significant changes.
1973 ²	9/26/73	Mass grading operations in eastern half of site, surrounded by fence. East and west terraced topographic features are now visible. New access road to E.C.R. under construction. Access road to Shields Avenue is visible. Commercial development under construction along E.C.R. Indications of re-grading and re-vegetation in parcel now occupied by Sheriff's Substation.	Commercial development appears on east side of E.C.R. Residences appear along Turner Ave and Shields Ave in adjoining parcels to the east. Increased commercial development along Encinitas Blvd.
9/18-1975 ³	322-1689	County Road Station and residence in NE corner of site are visible. Large dark area (possible exposed burn material or staining) appears in area occupied by the west terrace.	Continued commercial development on east side of E.C.R.

Table 2 (cont'd)

**Historical Aerial Photo Review
Encinitas I Burn Dump
Encinitas, California**

Date - Year	Flight, Photo ID	Site Features/Development	Surrounding Vicinity
1977 ²	1/31/77	Lark dark area remains on west terrace. Signs of equipment storage in NW corner of Road Station. Sheriff's Substation under construction. Landscaped vegetation appears on slopes of east and west terraces.	Increased commercial development along Encinitas Blvd.
10/23-1978 ¹	SDCo, 17B-34	Large dark area remains on west terrace. Sheriff's Substation is complete.	No significant changes.
10/23-1985 ³	322-1689	Large dark area remains on west terrace. Small dark area (possible staining) visible in parking area SE of Road Station. Small structure and indications of vegetation clearing appear in vicinity of present-day Recycling Center. Complete development of commercial parcels along east side of E.C.R. at western site boundary.	Via Molena appears at intersection with E.C.R. Large parcel south of site is developed into shopping center. Parcel north of site is developed into residences. Many commercial developments visible west of E.C.R.
4/4-1989 ¹	WAC-89CA, 1-211	Dark areas on west terrace and in Road Station parking area remain visible.	No significant changes.
2002 ⁴	Unspecified	Dark areas on west terrace and in parking area not visible. First indications of active Vehicle Storage Facility. Many vehicles appear in newly resurfaced parking area. Vegetation very sparse on terraces and terrace slopes.	Most of the surrounding developments in the vicinity appear similar to present day conditions.
2004 ⁵	Unspecified	Site generally appears as it does presently.	Off-site developments generally reflect present-day conditions.

1 – Source: County of San Diego, Cartographic Services

2 – Source: Landiscor Aerial Fotobank

3 – Source: County of San Diego, Topographic Survey Map

4 – Source: Microsoft TerraServer-USA

5 – Source: Google Keyhole

Table 3
Soil Sample Analytical Matrix
Encinitas I Burn Dump
Encinitas, California

Sample Type	Sample ID	Lead	pH	PAHs	TPH	VOCs	PCBs	Dioxins and Furans
Soil boring	EB-B1-0.5	X	X					
	EB-B1-5.5	X	X					
	EB-B1-6.0	X	X					
	EB-B2-0.5	X	X					
	EB-B2-6.0	X	X					
	EB-B3-0.5	X	X					
	EB-B3-2.0	X	X					
	EB-B3-5.0	X	X					
	EB-B4-0.5	X	X					
	EB-B4-2.5	X	X					
	EB-B4-4.0	X	X					
	EB-B5-1.5	X	X					
	EB-B5-5.5	X	X	X	X	X	X	
	EB-B5-9.0	X	X					
	EB-B6-2.0	X	X					
	EB-B6-7.0	X	X	X	X	X	X	X
	EB-B6-9.0	X	X					
	EB-B7-3.0	X	X					
	EB-B7-5.0	X	X	X	X	X	X	
	EB-B7-12.0	X	X					
	EB-B8-4.0	X	X					
	EB-B8-15.0	X	X	X	X	X	X	X
	EB-B8-18.0	X	X					
	EB-B9-2.5	X	X					
	EB-B9-5.0	X	X					
	EB-B9-18.0	X	X					
	EB-B10-2.5	X	X					
	EB-B10-10.0	X	X					
	EB-B10-20.0	X	X					
Hand Auger	EB-HA1-0.5	X	X					
	EB-HA2-0.5	X	X					X
	EB-HA3-0.5	X	X					
	EB-HA4-0.5	X	X					
	EB-HA5-0.5	X	X					
	EB-HA6-0.5	X	X					
	EB-HA12-0.5	X	X					
	EB-HA15-0.5	X	X					
	EB-HA17-0.5	X	X					
	EB-HA20-0.5	X	X					
Test Pit	EB-TP1-1.0	X	X					
	EB-TP1-4.0	X	X					
	EB-TP1-17.0	X	X					
	EB-TP2-1.0	X	X					
	EB-TP2-4.5	X	X					
	EB-TP2-13.5	X	X					
	EB-TP3-1.0	X	X					
	EB-TP3-6.0	X	X	X	X	X	X	
	EB-TP4-1.0	X	X					
	EB-TP4-4.0	X	X					
	EB-TP4-19.0	X	X					
	EB-TP5-1.0	X	X					
	EB-TP5-4.0	X	X	X	X	X	X	
	EB-TP5-12.5	X	X					
	EB-TP6-1.0	X	X					X
	EB-TP6-6.0	X	X	X	X	X	X	
	EB-TP6-8.5	X	X					
	EB-TP7-1.0	X	X					
	EB-TP7-6.5	X	X					
	EB-TP7-13.0	X	X					
	EB-TP8-1.0	X	X					
	EB-TP8-6.0	X	X					
	EB-TP8-19.0	X	X					
	EB-TP9-1.0	X	X					
	EB-TP9-3.0	X	X					

Table 4
Cover Thickness Summary
Encinitas I Burn Dump
Encinitas, California

Hand Auger ¹	Cover Thickness (ft)	Boring	Cover Thickness (ft)	Test Pit	Cover Thickness (ft)
HA-1	<0.5	B-1	4.0	TP-1	2.0
HA-2	0.5	B-2	0.5	TP-2	1.75
HA-3	0.5	B-3	0.5	TP-3	5.0
HA-4	3.5 ²	B-4	2	TP-4	3.5
HA-5	1.5 ³	B-5	3.5	TP-5	4.0
HA-6	<0.5	B-6	3.5	TP-6	6.0
HA-7	<0.5	B-7	4.0	TP-7	4.0
HA-8	0.75	B-8	9.5	TP-8	4.0
HA-9	3.0	B-9	4.0	TP-9	3.5
HA-10	<0.5	B-10	4.0		
HA-11	<0.5				
HA-12	1.0				
HA-13	<0.5				
HA-14	<0.5				
HA-15	<0.5				
HA-16	<0.5				
HA-17	1.0				
HA-18	<0.5				
HA-19	<0.5				
HA-20	<0.5				
HA-21	<0.5				

1 - Hand Auger Depth Recorded where glass fragments and/or ceramics were first encountered

2 - Refusal encountered, refusal depth displayed

3 - No Burn debris encountered, depth to native displayed

Table 5
Soil Sample Analytical Results - Lead and pH
Encinitas I Burn Dump
Encinitas, California

Sample ID	Date Sampled	Lead ¹	pH ²
		mg/kg	pH Units
EB-B1-0.5	9/12/2005	32.0	6.79
EB-B1-5.5	9/12/2005	141	7.39
EB-B1-6.0	9/12/2005	8.37	8.12
EB-B2-0.5	9/12/2005	29.7	6.44
EB-B2-6.0	9/12/2005	3.33	4.45
EB-B3-0.5	9/12/2005	45.5	7.2
EB-B3-2.0	9/12/2005	15.5	8.25
EB-B3-5.0	9/12/2005	5.51	7.72
EB-B4-0.5	9/12/2005	6.21	4.28
EB-B4-2.5	9/12/2005	8.97	7.76
EB-B4-4.0	9/12/2005	7.79	7.32
EB-B5-1.5	9/12/2005	1.65	6.95
EB-B5-5.5	9/12/2005	1250	7.85
EB-B5-9.0	9/12/2005	7.3	4.36
EB-B6-2.0	9/12/2005	63.8	6.45
EB-B6-7.0	9/12/2005	1890	7.19
EB-B6-9.0	9/12/2005	6.83	4.45
EB-B7-3.0	9/12/2005	26.5	5.4
EB-B7-5.0	9/12/2005	455	6.61
EB-B7-12.0	9/12/2005	7.84	5.18
EB-B8-4.0	9/12/2005	15.6	7.17
EB-B8-15.0	9/12/2005	1640	7.05
EB-B8-18.0	9/12/2005	5.48	7.37
EB-B9-2.5	9/12/2005	171	6.82
EB-B9-5.0	9/12/2005	63.1	7.34
EB-B9-18.0	9/12/2005	8.48	4.46
EB-B10-2.5	9/12/2005	16.4	6.27
EB-B10-10.0	9/12/2005	170	7.87
EB-B10-20.0	9/12/2005	77.6	7.91
EB-HA1-0.5	9/12/2005	140	7.52
EB-HA2-0.5	9/12/2005	28.2	6.61
EB-HA3-0.5	9/12/2005	6.51	7.91
EB-HA4-0.5	9/12/2005	45.1	6.76
EB-HA5-0.5	9/12/2005	5.93	6.07
EB-HA6-0.5	9/12/2005	122	7.77
EB-HA12-0.5	9/12/2005	10.6	7.01
EB-HA15-0.5	9/12/2005	111	6.47
EB-HA17-0.5	9/12/2005	131	6.53
EB-HA20-0.5	9/12/2005	64.7	6.46

Notes:

1: Total lead by EPA Method 6010B

2: pH by EPA Method 9045C

Bolded values exceed residential PRG

California-Modified Residential PRG for Lead: 150 mg/kg

Sample ID	Date Sampled	Lead ¹	pH ²
		mg/kg	pH Units
EB-TP1-1.0	9/14/2005	18.9	7
EB-TP1-4.0	9/14/2005	59.5	6.84
EB-TP1-17.0	9/14/2005	3.25	4.94
EB-TP2-1.0	9/14/2005	143	6.97
EB-TP2-4.5	9/14/2005	26.8	7.5
EB-TP2-13.5	9/14/2005	3.25	4.69
EB-TP3-1.0	9/14/2005	44.7	6.92
EB-TP3-6.0	9/14/2005	175	7.76
EB-TP4-1.0	9/14/2005	22.0	7
EB-TP4-4.0	9/14/2005	98.7	8.49
EB-TP4-19.0	9/14/2005	4.61	4.55
EB-TP5-1.0	9/15/2005	5.45	6.34
EB-TP5-4.0	9/15/2005	207	7.76
EB-TP5-12.5	9/15/2005	4.22	4.74
EB-TP6-1.0	9/15/2005	21.2	6.88
EB-TP6-6.0	9/15/2005	153	6.97
EB-TP6-8.5	9/15/2005	3.77	5.94
EB-TP7-1.0	9/15/2005	14.8	7.28
EB-TP7-6.5	9/15/2005	128	7.05
EB-TP7-13.0	9/15/2005	2.19	5.02
EB-TP8-1.0	9/15/2005	7.29	5.61
EB-TP8-6.0	9/15/2005	54.8	7.44
EB-TP8-19.0	9/15/2005	6.03	7.11
EB-TP9-1.0	9/15/2005	3.6	5.57
EB-TP9-3.0	9/15/2005	40.7	7.35

Table 6
Soil Sample Analytical Results - PAHs, TPH, VOCs, and PCBs
Encinitas I Burn Dump
Encinitas, California

Parameter	Units	PRG	EB-B5-5.5 9/12/2005	EB-B6-7.0 9/12/2005	EB-B7-5.0 9/12/2005	EB-B8-15.0 9/12/2005	EB-TP3-6.0 9/14/2005	EB-TP5-4.0 9/15/2005	EB-TP6-6.0 9/15/2005
PAHs by EPA Method 8310									
Napthalene	µg/kg	1,700*	ND<26	ND<26	ND<26	ND<26	ND<26	ND<26	ND<26
Acenaphthylene	µg/kg	NE	ND<32	ND<32	ND<32	ND<32	ND<32	ND<32	ND<32
Acenaphthene	µg/kg	3,700,000	ND<19	ND<19	ND<19	ND<19	ND<19	ND<19	ND<19
Fluorene	µg/kg	2,700,000	ND<16	ND<16	ND<16	ND<16	ND<16	ND<16	ND<16
Phenanthrene	µg/kg	NE	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2
Anthracene	µg/kg	22,000,000	ND<1.9	ND<1.9	ND<1.9	ND<1.9	ND<1.9	ND<1.9	ND<1.9
Fluoranthene	µg/kg	2,300,000	ND<4.9	ND<4.9	ND<4.9	1800	ND<4.9	76	ND<4.9
Pyrene	µg/kg	2,300,000	58	ND<3.1	ND<3.1	ND<3.1	ND<3.1	ND<3.1	ND<3.1
Benzo (a) Anthracene	µg/kg	620	ND<2.9	ND<2.9	ND<2.9	ND<2.9	ND<2.9	ND<2.9	ND<2.9
Chrysene	µg/kg	3,800*	ND<2.6	ND<2.6	ND<2.6	ND<2.6	ND<2.6	ND<2.6	ND<2.6
Benzo (b) Fluoranthene	µg/kg	620	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5	ND<3.5
Benzo (k) Fluoranthene	µg/kg	6,200	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2	ND<2.2
Benzo (a) Pyrene	µg/kg	62	ND<3.2	ND<3.2	ND<3.2	ND<3.2	ND<3.2	ND<3.2	ND<3.2
Dibenz (a,h) Anthracene	µg/kg	62	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4
Benzo (g,h,i) Perylene	µg/kg	NE	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7
Indeno (1,2,3-c,d) Pyrene	µg/kg	620	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5	ND<2.5
TPH by EPA Method 9015 Carbon Chain Analysis									
C7	mg/kg	NE	ND	ND	ND	ND	ND	ND	ND
C8	mg/kg	NE	ND	ND	ND	ND	ND	ND	ND
C9-C10	mg/kg	NE	ND	ND	ND	ND	ND	0.43	ND
C11-C12	mg/kg	NE	ND	ND	0.49	ND	0.031	0.14	0.015
C13-C14	mg/kg	NE	0.75	0.82	3.4	0.97	0.55	1.1	0.63
C15-C16	mg/kg	NE	3.5	1.7	4.3	3.2	2.2	7.6	1.7
C17-C18	mg/kg	NE	1.4	1.8	2.7	2.0	3.6	5.6	2.3
C19-C20	mg/kg	NE	2.8	2.8	2.1	2.8	2.5	6.9	2.4
C21-C22	mg/kg	NE	4.6	1.8	4.2	4.1	5.6	9.5	5.5
C23-C24	mg/kg	NE	4.5	3.1	3.5	6.5	3.5	16	1.9
C25-C28	mg/kg	NE	32	23	28	28	15	78	4.6
C29-C32	mg/kg	NE	ND	ND	ND	ND	14	88	3.9
C33-C36	mg/kg	NE	14	5.6	3.3	11	20	59	4.9
C37-C40	mg/kg	NE	5.6	3.3	7.4	3.6	4.8	24	4.3
C41-C44	mg/kg	NE	9.6	4.5	5.5	7.0	12	16	3.6
C7-C44 Total	mg/kg	NE	66	36	54	58	84	310	36
PCBs by EPA Method 8310	µg/kg	NE	ND	ND	ND	ND	ND	ND	ND
Volatile Organic Compounds by EPA Method 8260B	µg/kg	Varies	ND	ND	ND	ND	ND	ND	ND

ND - Not detected at the specified method detection limit

PRG - Preliminary remediation goal for residential property use

* - California-Modified Residential PRG

PAHs - Polynuclear aromatic hydrocarbons

TPH - Total petroleum hydrocarbons

PCBs - Polychlorinated biphenyls

µg/kg - micrograms per kilogram

mg/kg - milligrams per kilogram

NE - Not Established

Table 7
Soil Sample Analytical Results, Dioxins and Furans
Encinitas I Burn Dump
Encinitas, California

		EB-TP6-1.0	EB-HA2-0.5	EB-B6-7.0	EB-B8-15.0
Parameter	Units	9/15/2005	9/12/2005	9/12/2005	9/12/2005
Dioxins and Furans by EPA Method 8290					
2,3,7,8-TCDD	ng/kg	0.459J	ND	16.8	5.41
1,2,3,7,8-PeCDD	ng/kg	0.810J	0.592J	52.2	13.05
1,2,3,4,7,8-HxCDD	ng/kg	0.971J	ND	52.2	0.522
1,2,3,6,7,8-HxCDD	ng/kg	2.41J	2.46J	87.8	0.878
1,2,3,7,8,9-HxCDD	ng/kg	1.98J	2.38J	64.7	0.647
1,2,3,4,6,7,8-HpCDD	ng/kg	23.8	19.0	736	0.0736
OCDD	ng/kg	143	115	2960	0.00296
2,3,7,8-TCDF	ng/kg	3.42	2.14	222	2.22
1,2,3,7,8-PeCDF	ng/kg	2.86	2.13J	247	0.6175
2,3,4,7,8-PeCDF	ng/kg	5.34	3.42	498	124.5
1,2,3,4,7,8-HxCDF	ng/kg	3.87	2.41	391	3.91
1,2,3,6,7,8-HxCDF	ng/kg	3.41	2.86	342	3.42
2,3,4,6,7,8-HxCDF	ng/kg	4.74	2.99	487	4.87
1,2,3,7,8,9-HxCDF	ng/kg	1.05J	0.914	35.7	0.357
1,2,3,4,6,7,8-HpCDF	ng/kg	13.3	8.75	1440	1.44
1,2,3,4,7,8,9-HpCDF	ng/kg	0.892J	0.638	84.2	0.0842
OCDF	ng/kg	6.34	5.15	442	0.000442
Totals					
TCDD	ng/kg	36.7	18.8	1820	175
PeCDD	ng/kg	29.6	18.2	1890	166
HxCDD	ng/kg	39.8	26.2	2550	217
HpCDD	ng/kg	44.9	37.5	1540	327
TCDF	ng/kg	84.0	57.5	7750	2480
PeCDF	ng/kg	58.0	38.1	5540	1390
HxCDF	ng/kg	40.3	27.3	4100	673
HpCDF	ng/kg	20.6	14.0	2020	251
TEQ ¹	ng/kg	6.39	4.13	499	119

1- Preliminary remediation goal (PRG) for 2,3,7,8-TCDD is compared to this value. PRG for 2,3,7,8-TCDD is 3.9 ng/kg

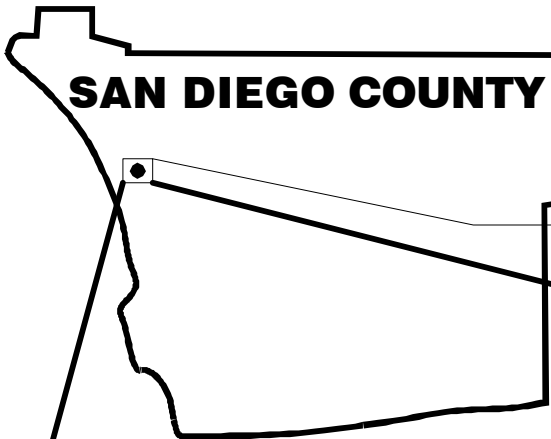
TEQ- Toxicity Equivalency Quotient

ND- Not Detected

ng/kg- Nanogram per kilogram

FIGURES

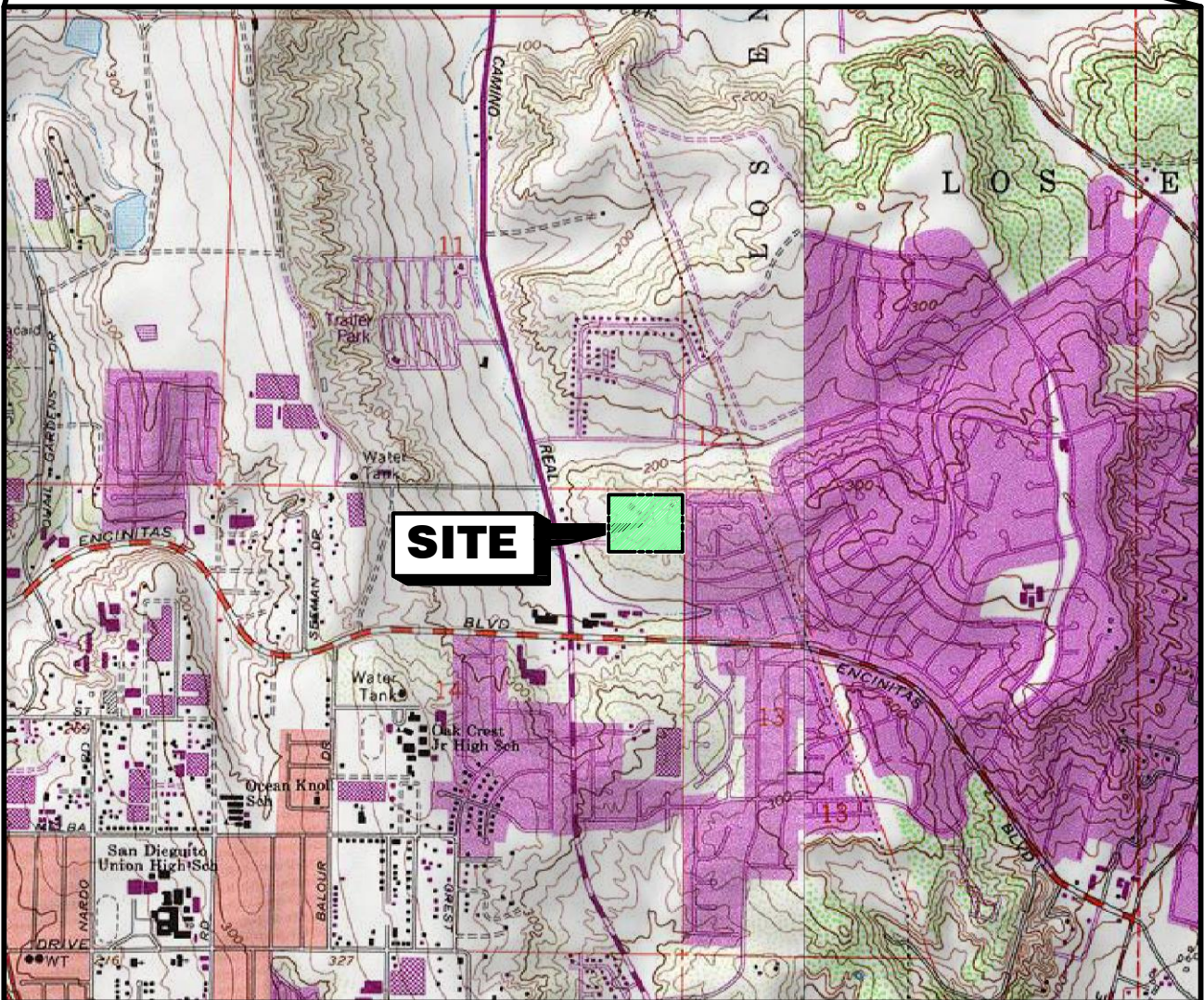




SAN DIEGO COUNTY



Encinitas I Burn Dump



SOURCE:
NATIONAL GEOGRAPHIC (CALIFORNIA)
SEAMLESS USGS TOPOGRAPHIC MAPS ON CD-ROM
POWERED BY TOPO

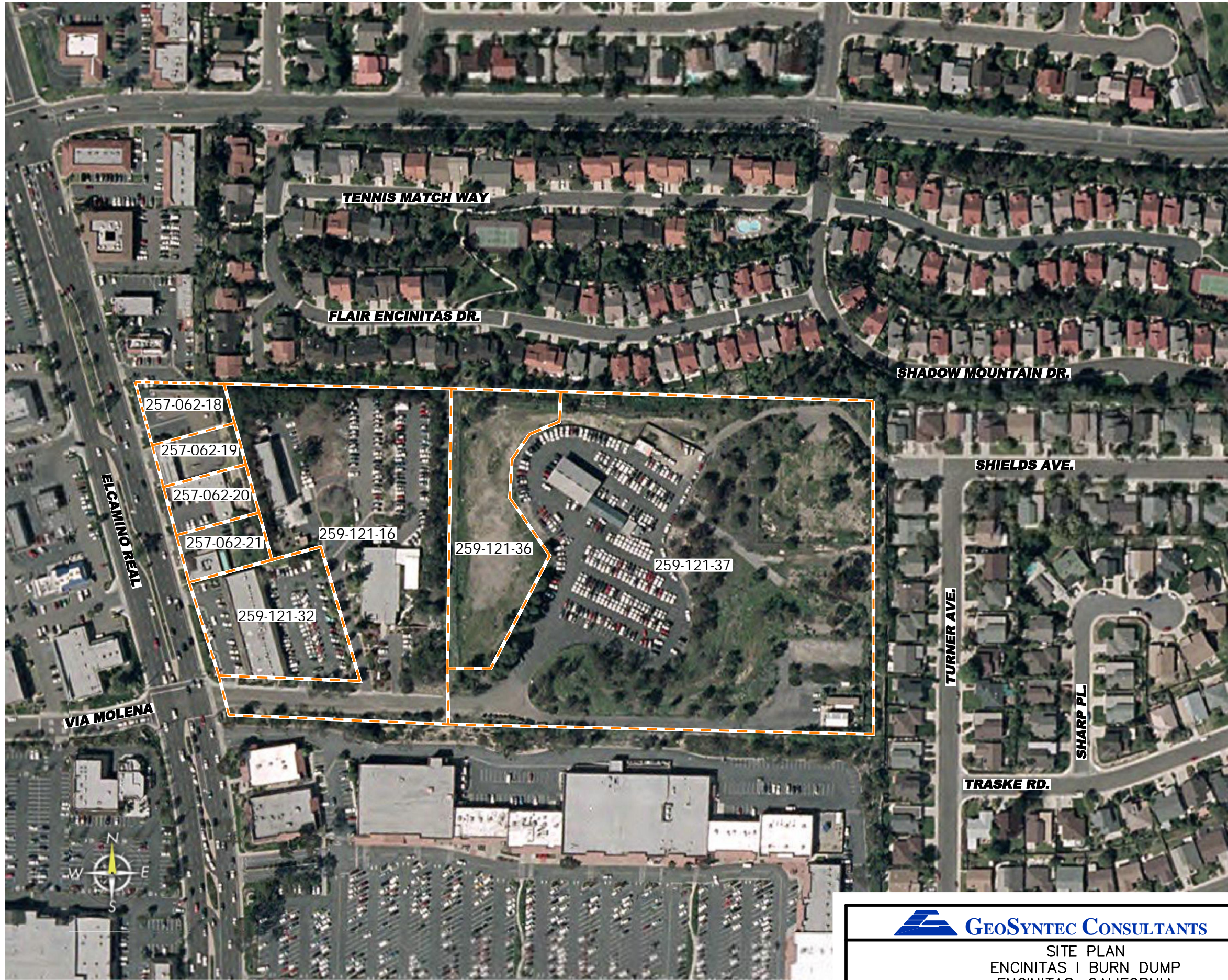


GEOSYNTEC CONSULTANTS

SITE LOCATION
ENCINITAS I BURN DUMP
ENCINITAS, CALIFORNIA

FIGURE NO. 1
PROJECT NO. SC0311
DATE: MARCH 2006

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LEGEND

----- PARCEL BOUNDARY AND
259-121-37 NUMBER

NOTE:
ALL FEATURE LOCATIONS AND DIMENSIONS ARE
APPROXIMATE.



200 100 0 200

SCALE IN FEET



GEOSYNTEC CONSULTANTS

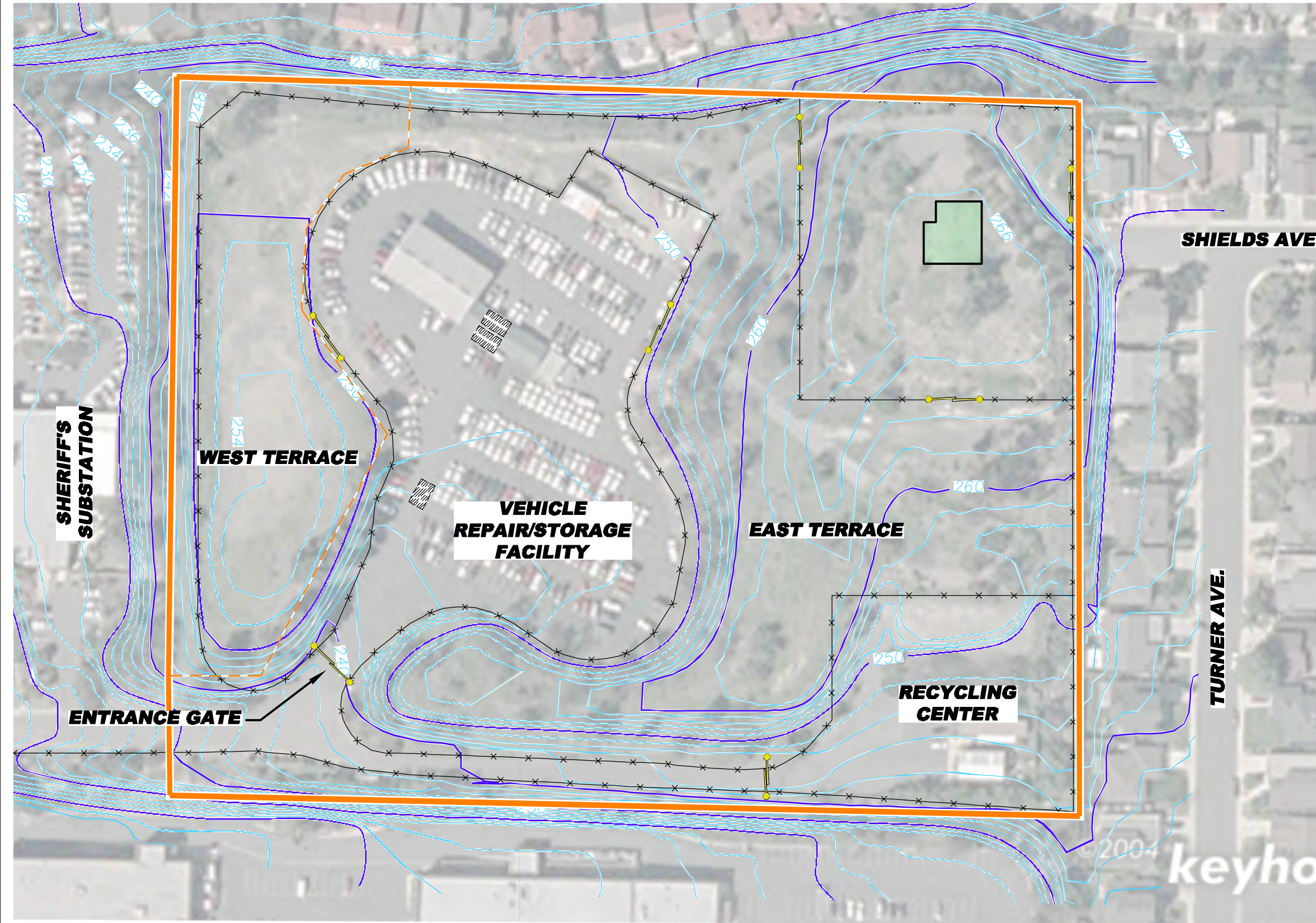
AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com



SITE PLAN
ENCINITAS I BURN DUMP
ENCINITAS, CALIFORNIA

FIGURE NO. 2
PROJECT NO. SC0311-01-02
DATE: JUNE 2005

P:\PR\SDCadd\CADD\SC0311-01-02-SF-001.dwg 1/10/06 14:43 Administrator



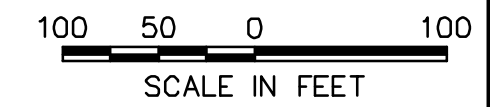
LEGEND

- SITE BOUNDARY
- x-x- EXISTING FENCE
- [Green Hatched Box] FORMER RESIDENCE
- [Diagonal Hatched Box] FORMER UNDER GROUND STORAGE TANKS (UST)
- ACCESS GATE
- 250 MAJOR ELEVATION CONTOUR (10 FOOT INTERVAL)
- 252 MINOR ELEVATION CONTOUR (2 FOOT INTERVAL)

NOTE:
ALL FEATURE LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

TOPOGRAPHIC SOURCE:

TOPOGRAPHY COMPILED BY PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY DATED;
OCTOBER 25, 1985
BY SAN-LO AERIAL SURVEYS



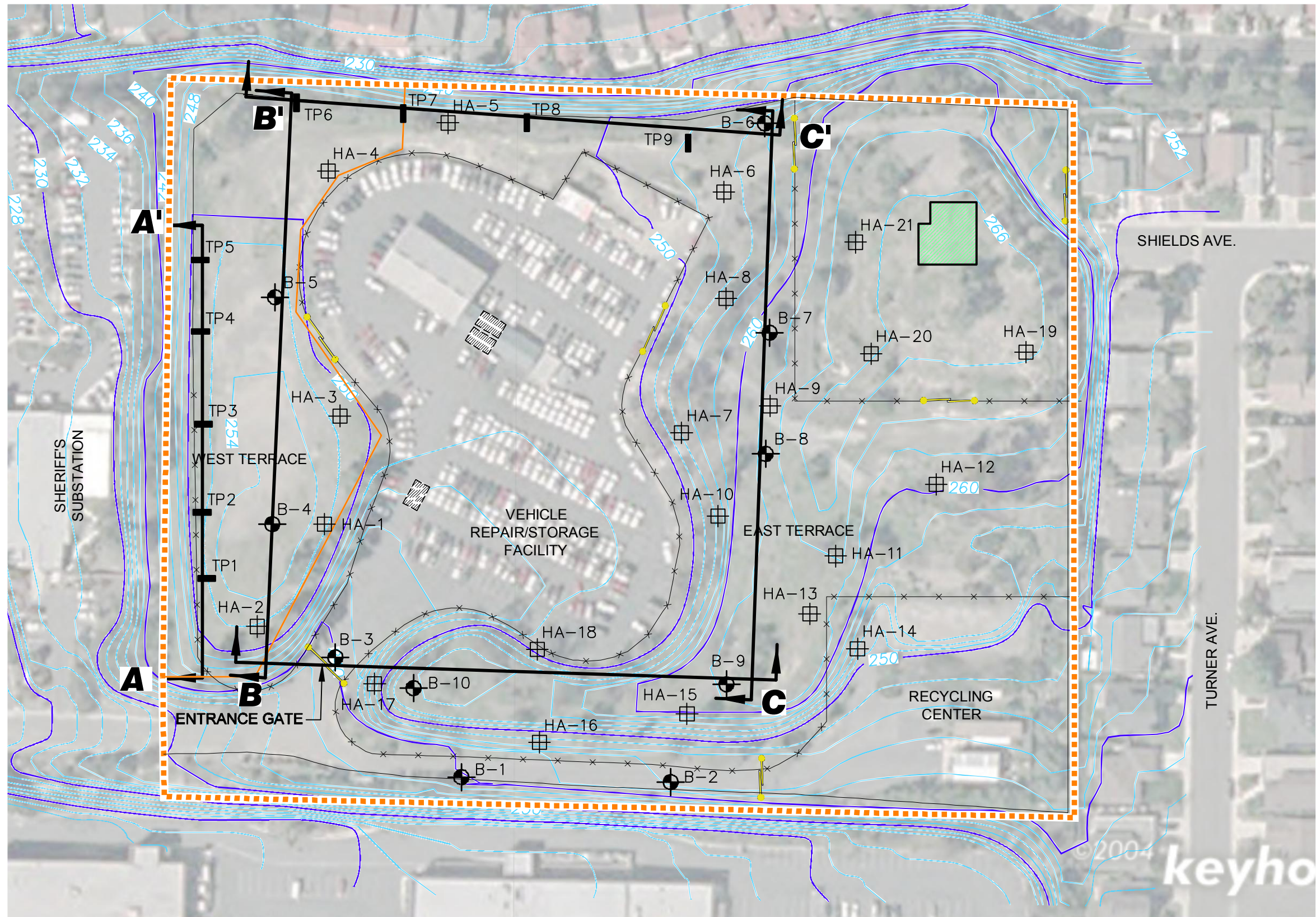
SITE FEATURES
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com



FIGURE NO. 3
PROJECT NO. SC0311-02-02
DATE: OCTOBER 2005

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LEGEND

SITE BOUNDARY

EXISTING FENCE

FORMER RESIDENCE

FORMER UNDERGROUND STORAGE TANKS (USTs)

ACCESS GATE

MAJOR ELEVATION CONTOUR (10 FOOT INTERVAL)

MINOR ELEVATION CONTOUR (2 FOOT INTERVAL)

TEST PIT (9)

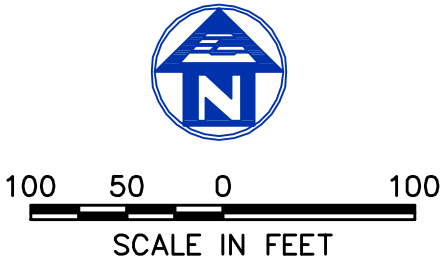
DIRECT-PUSH BORING (10)

HAND AUGER (21)

INDICATES APPROXIMATE LOCATION OF CROSS SECTION SHOWN ON FIGURES 6-8

NOTE:
ALL FEATURE LOCATIONS AND DIMENSIONS ARE APPROXIMATE.

TOPOGRAPHIC SOURCE:
TOPOGRAPHY COMPILED BY PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY DATED; OCTOBER 25, 1985
BY SAN-LO AERIAL SURVEYS



GEOSYNTEC CONSULTANTS

SUBSURFACE EXPLORATION LOCATIONS

ENCINITAS BURN I BURN DUMP

ENCINITAS, CALIFORNIA

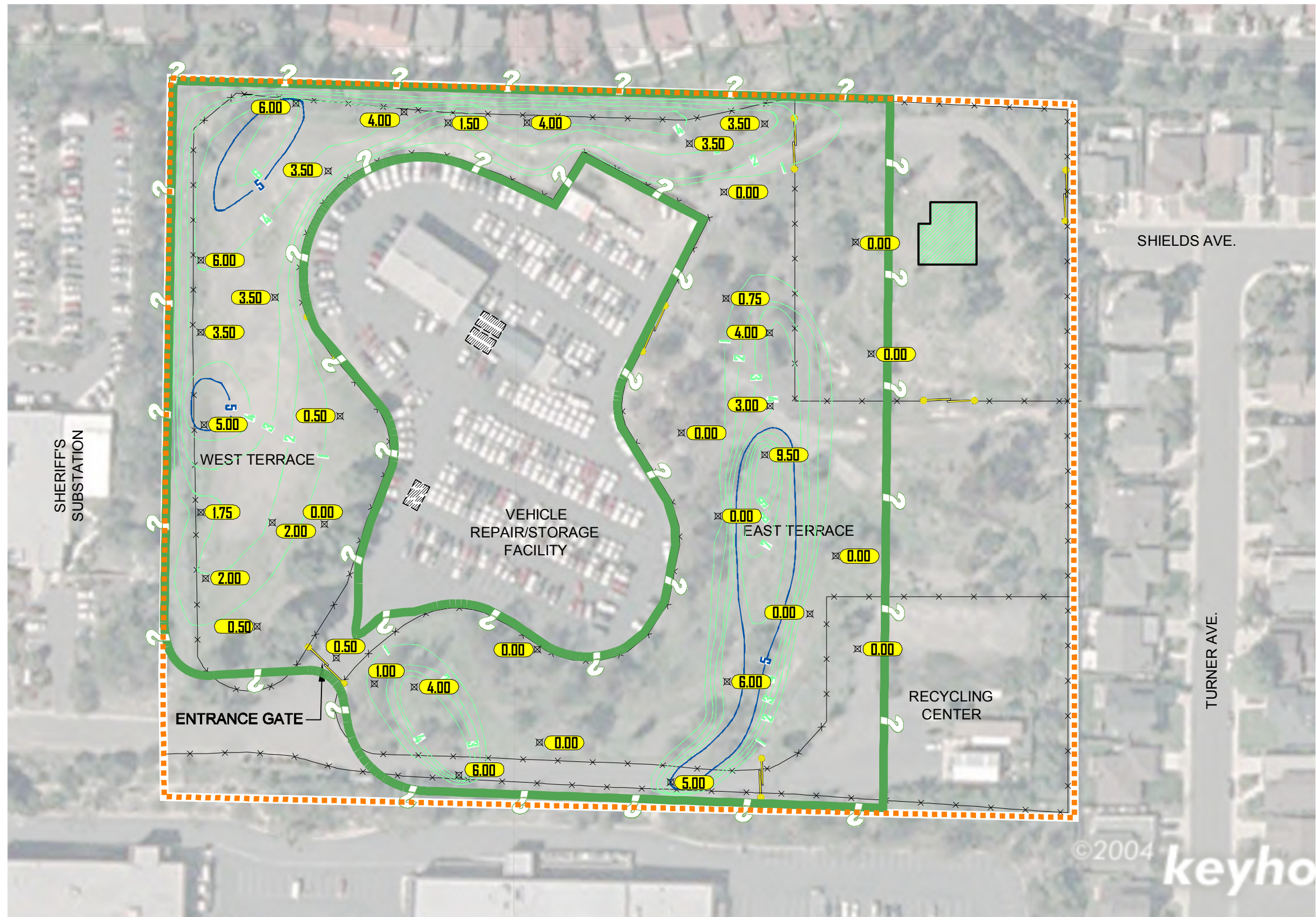
AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com

FIGURE NO. 4

PROJECT NO. SC0311-02-02

DATE: JANUARY 2006

P:\PR\SDCadd\CADD\SC0311-01-02_CLEAN-COVER.dwg 1/13/06 16:42 Administrator



LEGEND

- SITE BOUNDARY
- EXISTING FENCE
- FORMER RESIDENCE
- FORMER UNDERGROUND STORAGE TANKS (USTs)
- ACCESS GATE
- APPROXIMATE EXTENT OF WASTE/BURN DEBRIS QUERIED WHERE UNCERTAIN
- COVER THICKNESS CONTOUR
- COVER THICKNESS AT SAMPLE POINT
- 0.00

NOTES:

1. ALL FEATURE LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. INDICATIONS OF BURNED DEBRIS (MELTED GLASS, CERAMIC FRAGMENTS, ETC.) WERE OBSERVED AT THE GROUND SURFACE IN AREAS WHERE NO APPARENT "CAP" IS MAPPED AS PRESENTED ABOVE. HOWEVER THAT IS NOT NECESSARILY AN INDICATION THAT BURIED "BURN ASH" IS PRESENT AT THOSE LOCATIONS.

TOPOGRAPHIC SOURCE:

TOPOGRAPHY COMPILED BY PHOTOGRAMMETRIC METHODS FROM PHOTOGRAPHY DATED; OCTOBER 25, 1985 BY SAN-LO AERIAL SURVEYS



100 50 0 100
SCALE IN FEET

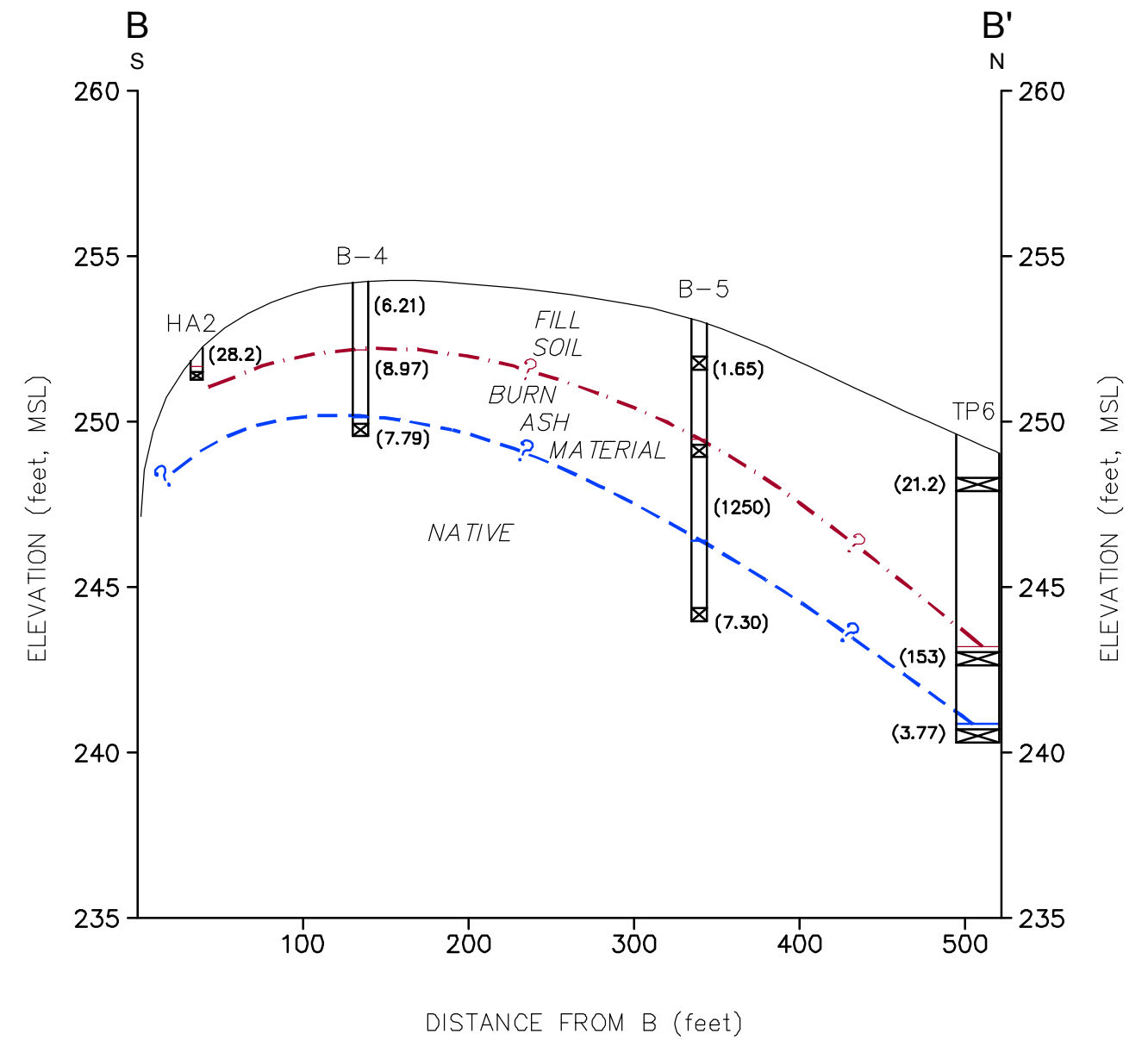
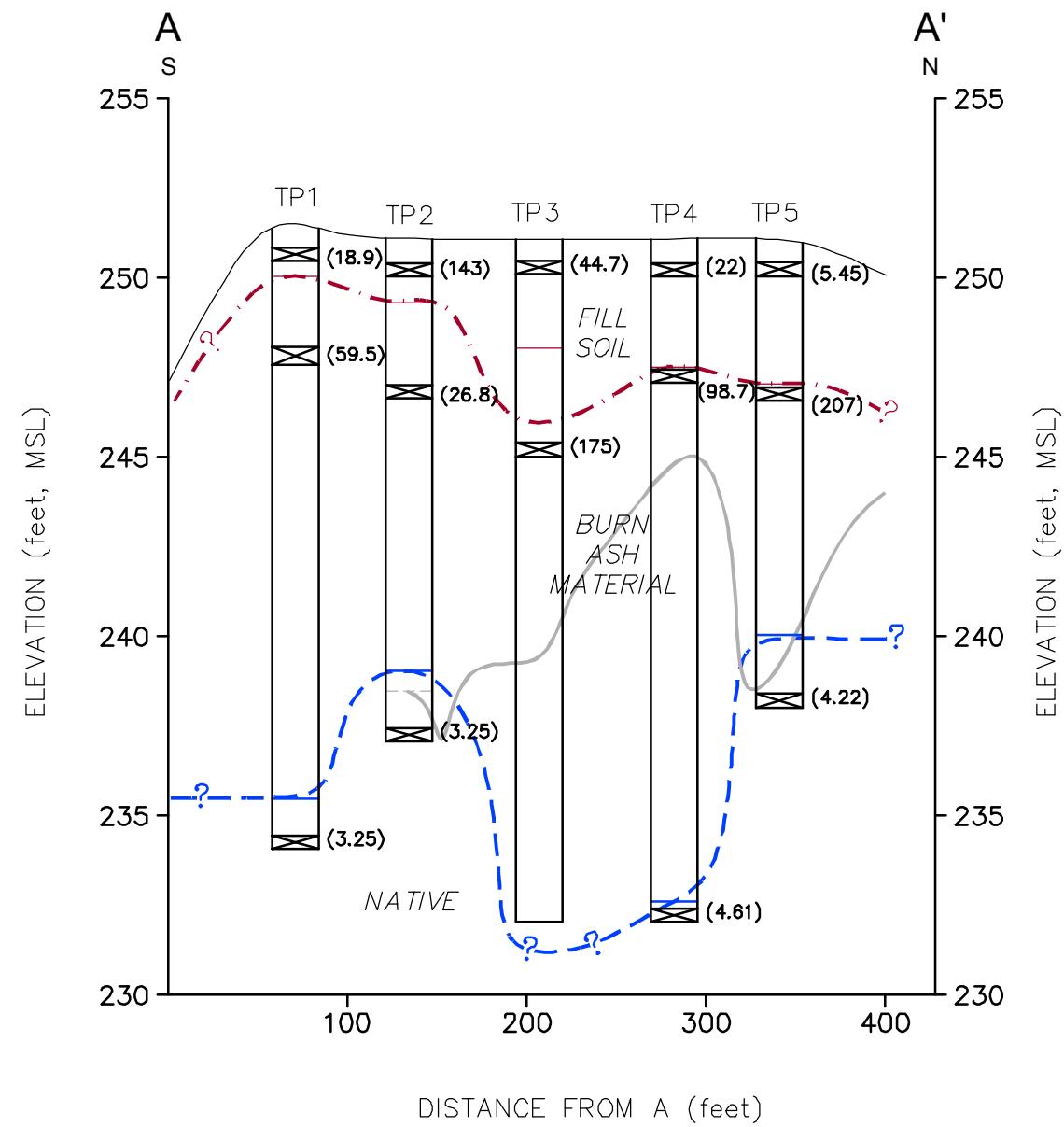


ESTIMATED THICKNESS OF CLEAN COVER MATERIAL
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com

FIGURE NO. 5
PROJECT NO. SC0311-02-02
DATE: JANUARY 2006

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KEY

- (3.25) TOTAL LEAD CONCENTRATION IN mg/kg
- ☒ SAMPLE INTERVAL
- ESTIMATED SURFACE ELEVATION
- SEISMIC MODEL OF NATIVE CONTACT
- - ? - - TOP OF BURN ASH MATERIAL QUERIED WHERE UNCERTAIN
- - ? - - TOP OF NATIVE MATERIAL QUERIED WHERE UNCERTAIN

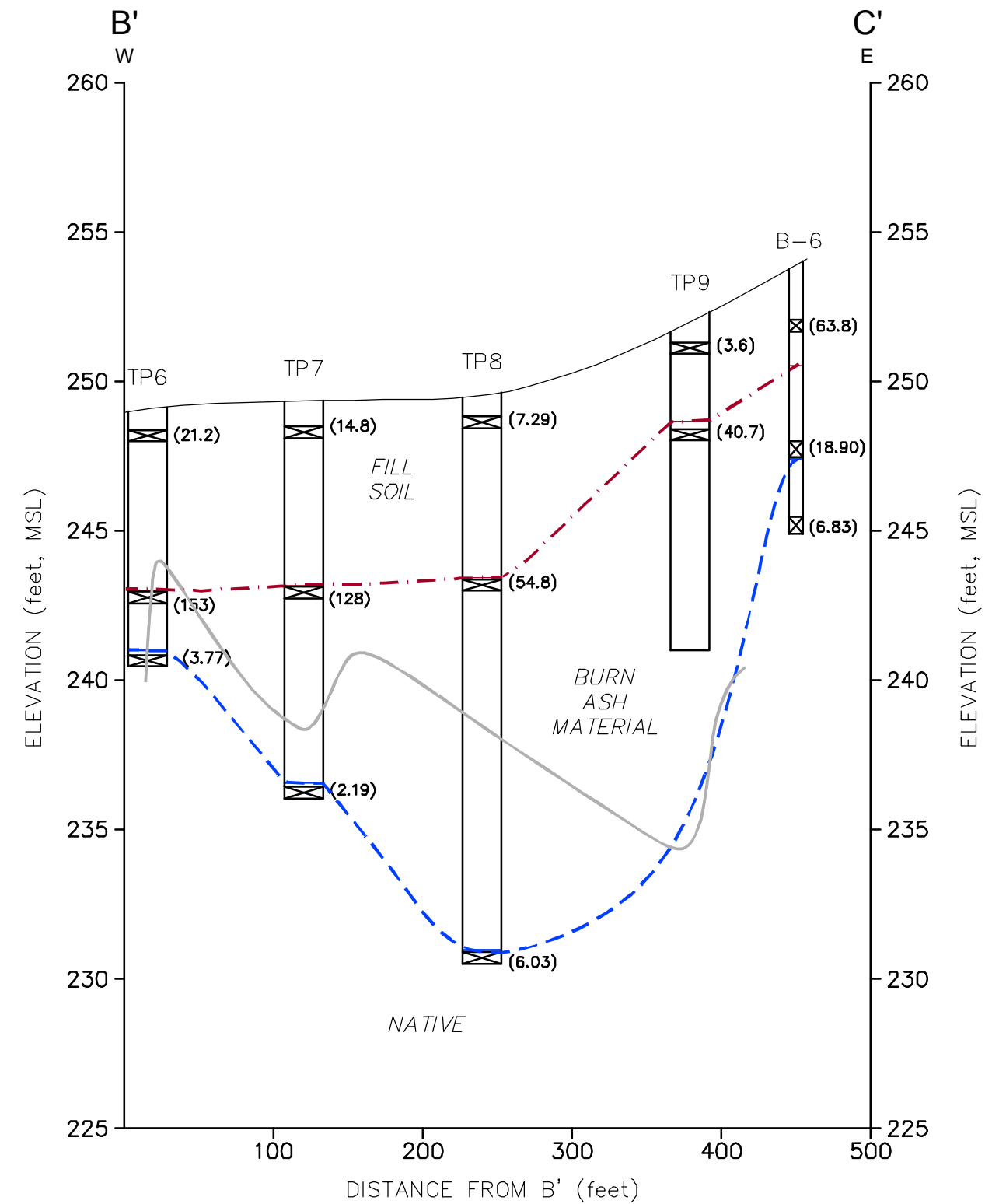
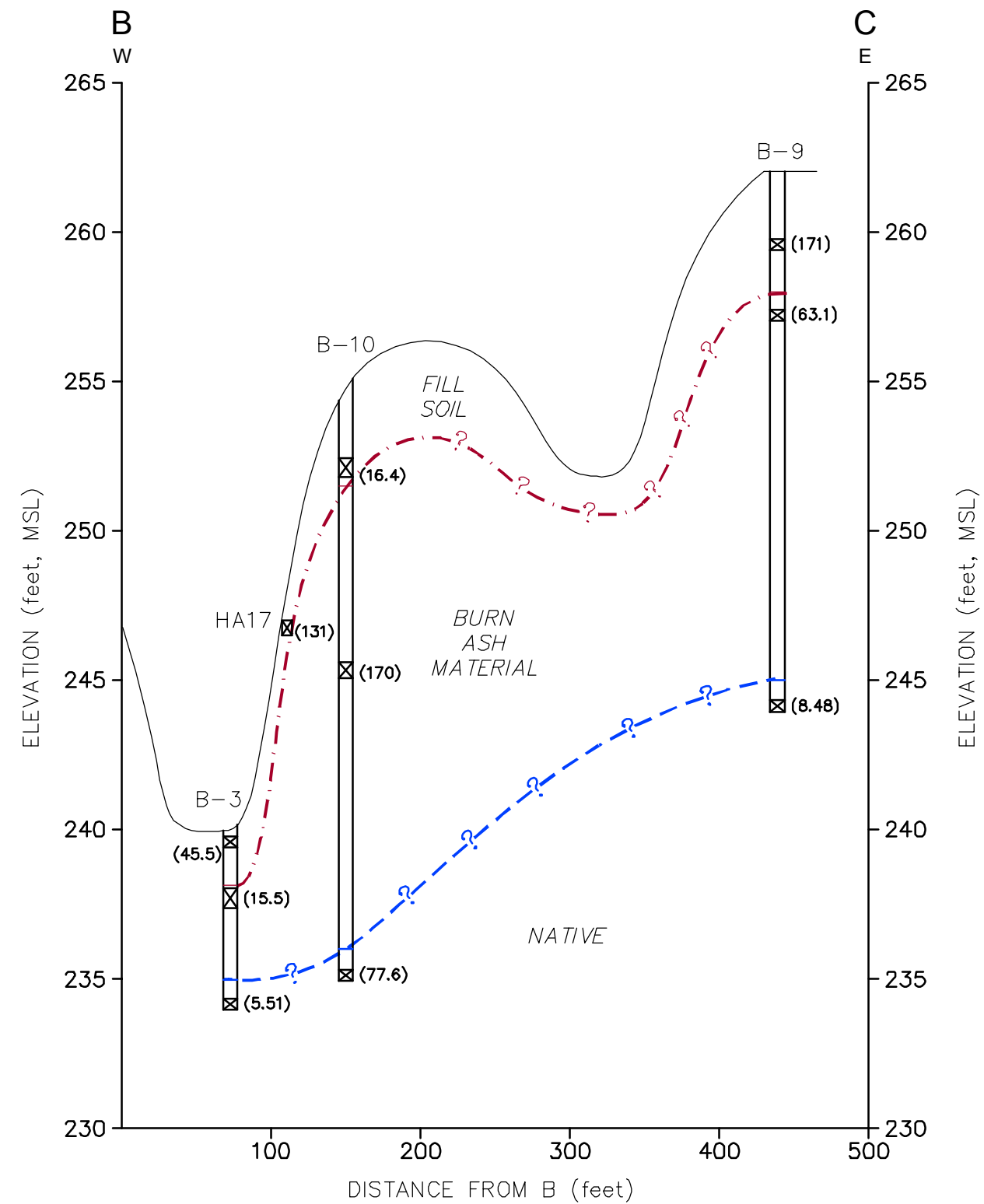
100 50 0 100
SCALE IN FEET
VERTICAL EXAGGERATION = 20



CROSS SECTIONS A-A' AND B-B'
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

FIGURE NO. 6
PROJECT NO. SC0311-02-02
DATE: OCTOBER 2005

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KEY

(3.25) TOTAL LEAD CONCENTRATION
IN mg/kg

☒ SAMPLE INTERVAL

— ESTIMATED SURFACE
ELEVATION

— SEISMIC MODEL OF NATIVE
CONTACT

- - ? - - TOP OF BURN ASH MATERIAL
QUERIED WHERE UNCERTAIN

- - ? - - TOP OF NATIVE MATERIAL
QUERIED WHERE UNCERTAIN

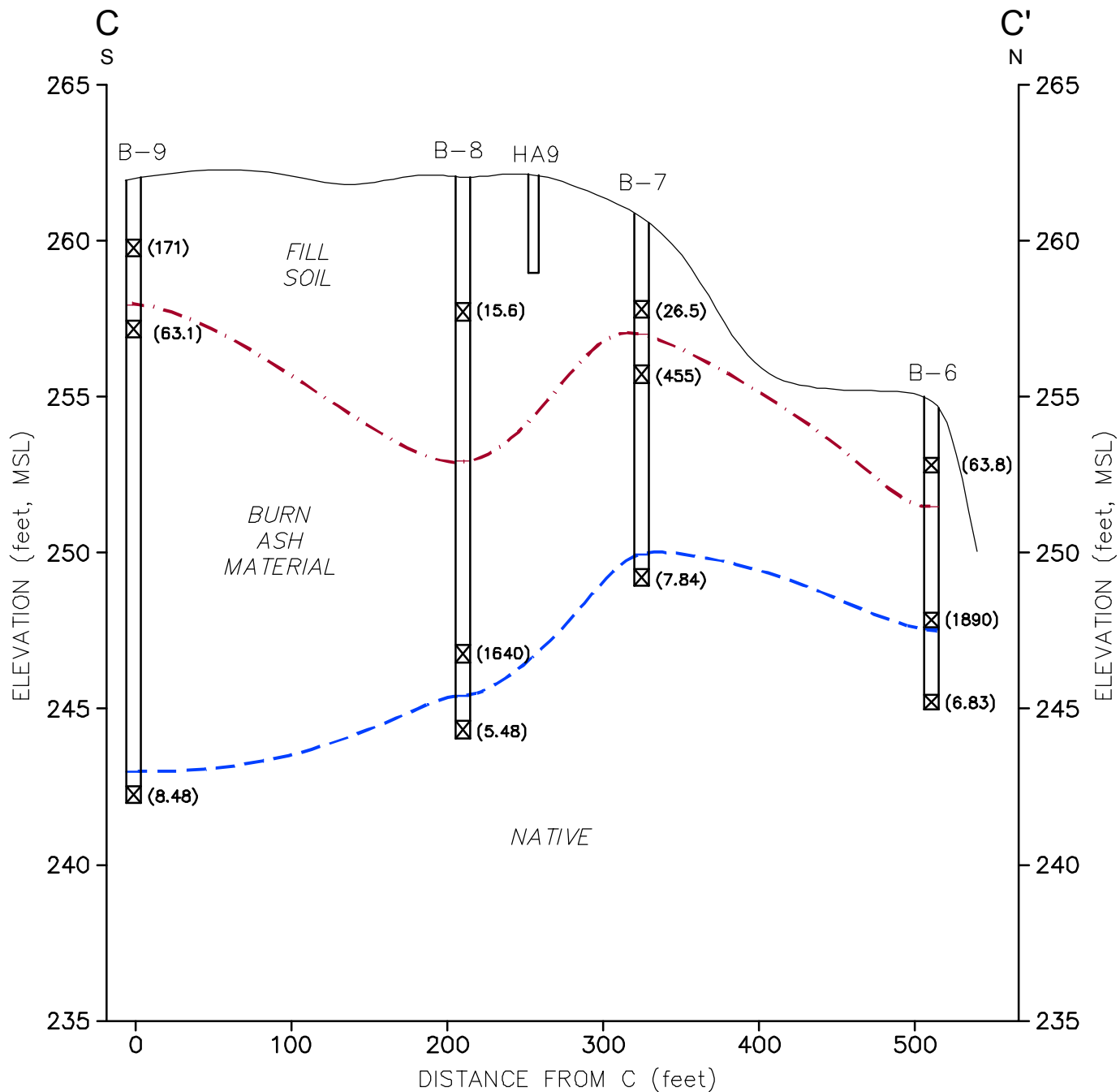
100 50 0 100
SCALE IN FEET
VERTICAL EXAGGERATION = 20

GEOSYNTEC CONSULTANTS

CROSS SECTIONS B-C AND B'-C'
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

FIGURE NO. 7
PROJECT NO. SC0311-02-02
DATE: OCTOBER 2005

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KEY

(3.25) TOTAL LEAD CONCENTRATION IN mg/kg



SAMPLE INTERVAL



ESTIMATED SURFACE ELEVATION



TOP OF BURN ASH MATERIAL
QUERIED WHERE UNCERTAIN



TOP OF NATIVE MATERIAL
QUERIED WHERE UNCERTAIN



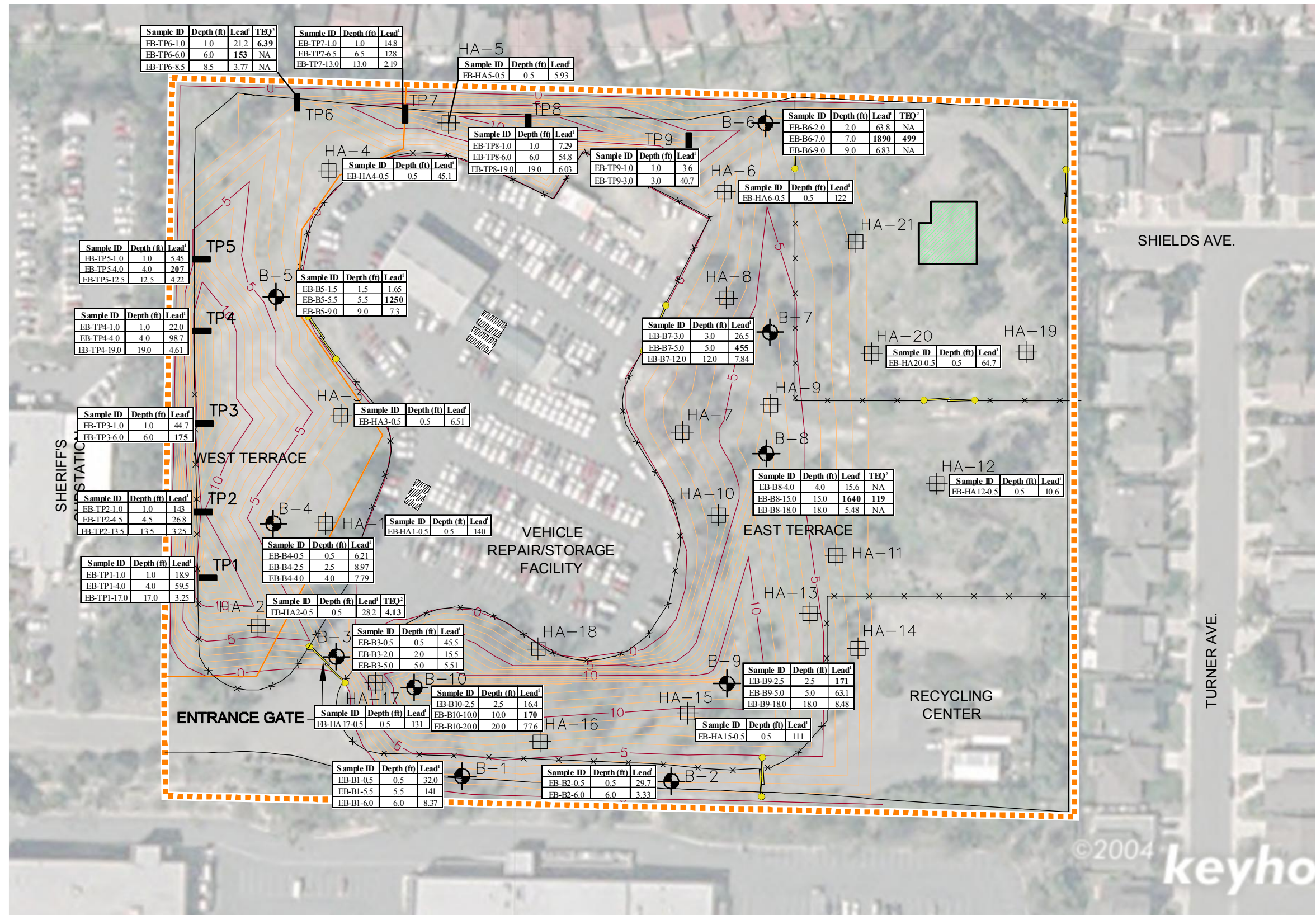
GEO SYNTEC CONSULTANTS

JANUARY 2006
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

FIGURE NO. 8

PROJECT NO. SC0311-02-02

DATE: OCTOBER 2005



LEGEND

- SITE BOUNDARY
- EXISTING FENCE
- FORMER RESIDENCE
- FORMER UNDERGROUND STORAGE TANKS (USTs)
- ACCESS GATE
- TEST PIT (9)
- DIRECT-PUSH BORING (10)
- HAND AUGER (21)
- MAJOR WASTE THICKNESS CONTOUR
- MINOR WASTE THICKNESS CONTOUR

NOTE:
1. CALIFORNIA-MODIFIED RESIDENTIAL PRELIMINARY REMEDIATION GOAL (PRG) FOR LEAD = 150 mg/kg (LEAD VALUES ARE MEASURED IN mg/kg)
2. TEQ-TOXICITY EQUIVALENCY QUOTIENT RESIDENT PRG FOR 2,3,7,8-TCDD IS (3.9 ng/kg)

NA-NOT ANALYZED
BOLD VALUES EXCEED PRG



100 50 0 100
SCALE IN FEET



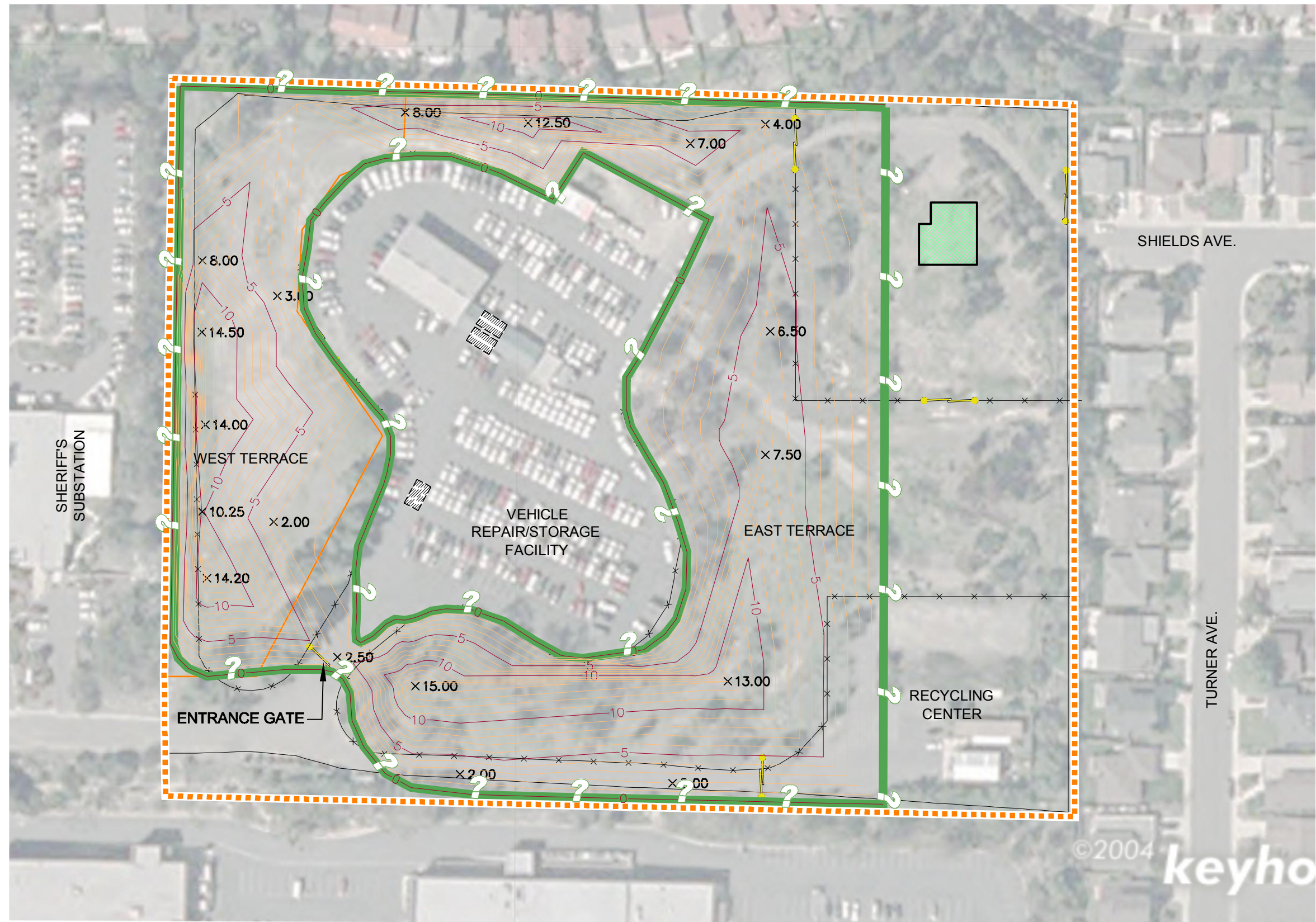
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LEAD & DIOXIN/FURANS CONCENTRATIONS IN SOIL
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA










AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com

FIGURE NO. 9
PROJECT NO. SC0311-02-02
DATE: OCTOBER 2005

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LEGEND

-  SITE BOUNDARY
-  EXISTING FENCE
-  FORMER RESIDENCE
-  FORMER UNDERGROUND STORAGE TANKS (UST)
-  ACCESS GATE
-  APPROXIMATE EXTENT OF WASTE/BURN DEBRIS QUERIED WHERE UNCERTAIN
-  MAJOR WASTE THICKNESS CONTOUR
-  MINOR WASTE THICKNESS CONTOUR
-  WASTE THICKNESS AT SAMPLE POINT



100 50 0 100
SCALE IN FEET



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ESTIMATED WASTE THICKNESS CONTOURS
ENCINITAS BURN I BURN DUMP
ENCINITAS, CALIFORNIA

AERIAL PHOTOGRAPH REFERENCE:
2004 keyhole.com

FIGURE NO. 10
PROJECT NO. SC0311-01-02
DATE: JANUARY 2006

**APPENDIX A
SITE PHOTOGRAPHS**





Photo 1, Looking North along East side of West Terrace. Vehicle repair/storage facility and overflow lot appears at northern end of site.



Photo 2, Looking North along Western Edge of Site.



Photo 3, Site of former residence located in northeastern corner of site.



Photo 4, Looking North on East Terrace; Vehicle repair/storage facility and overflow appear to the west beyond trees.



Photo 5, Looking Northwest from East Terrace.



Photo 6, Looking West on East Terrace (Marker is EB-B9).



Photo 7, EB-B1 situated on southern edge of site.



Photo 8, EB-B2 located west of EB-B1 on southern edge of site.



Photo 9, EB-B3 situated in driveway leading to vehicle repair/storage facility.



Photo 10, Vironex personnel advancing direct push boring EB-B6 along northern edge of site.



Photo 11, Contact between burn ash and native at 11.0 ft bgs at EB-B7.



Photo 12, EB-TP-1 located next to fence along western edge.



Photo 13, Approximately 2 ft bgs at EB-TP-1; Arrow points to distinct contact between cover and burn ash material; burn ash material was present to 16 ft bgs.



Photo 14, EB-TP-2 located north of EB-TP-1 along western edge. Burn ash material was encountered between 1.75 and 12 ft bgs. Test pits were excavated by BL Hall with a Deere 710G backhoe.



Photo 15, (EB-TP-2) Test pits were backfilled with clean, imported fill.



Photo 16, EB-TP-3 was located north of EB-TP-2 along western edge. Burn ash was encountered between 5 and 18 ft bgs. Soil was stockpiled on plastic sheeting to minimize contamination of surface soils with burn ash constituents.



Photo 17, EB-TP-4 was located north of EB-TP-3 along the western edge. The total depth was 19 ft bgs. Burn ash materials were encountered between 3.5 and 18.5 ft bgs and are visible along walls of pit.



Photo 18, EB-TP-5 was located north of EB-TP-4 along western edge. Burn ash was encountered 4 ft bgs and extended to a depth of 11 ft bgs.



Photo 19, EB-TP-6 was located the western-most test pit located on the northern edge of the site.



Photo 20, EB-TP-6 had a thin layer of burn ash material from 6 to 8.5 ft bgs.



Photo 21, EB-TP-7 was located east of TP-6 along northern edge.

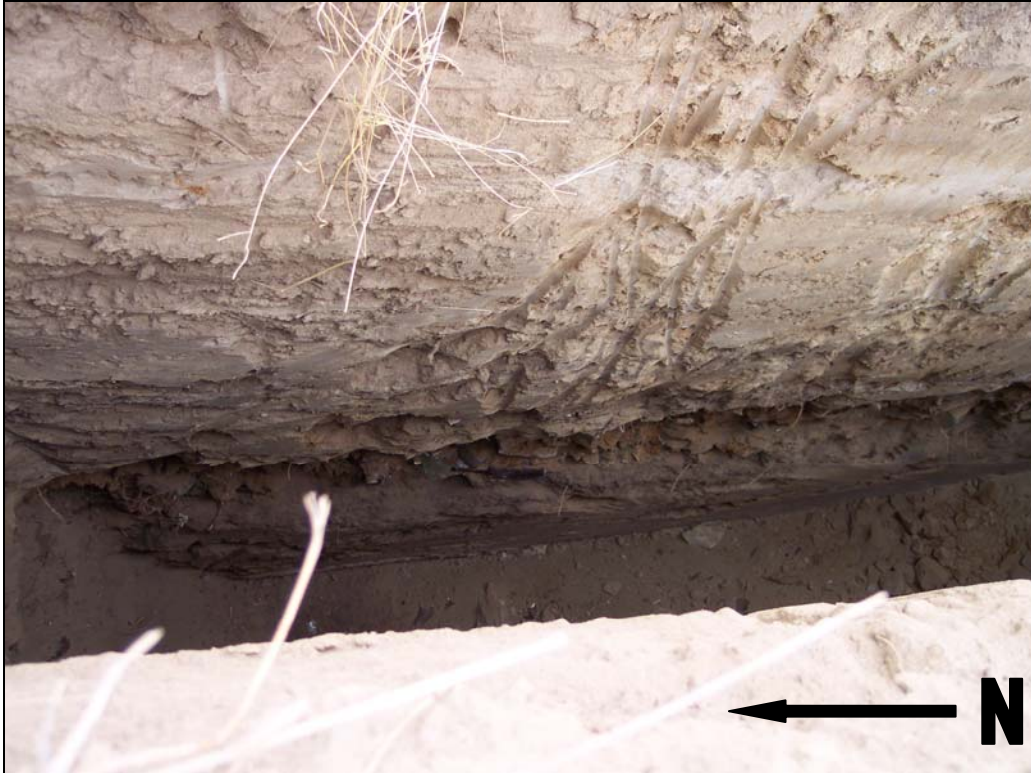


Photo 22, Waste at EB-TP-7 was encountered at 4 ft bgs on the southern side and 6 ft bgs on the northern side. Native soil was encountered at 13 ft bgs.



Photo 23, EB-TP-8 was located east of EB-TP-7 on the northern edge of the site.



Photo 24, Waste at EB-TP-8 began at 4 ft bgs on the southern side and 6ft bgs on the northern side. Native soil was encountered at 19 ft bgs.



Photo 25, EB-TP-9 was located east of EB-TP-8 on the northern edge of the site.



Photo 26, Waste began 3 ft bgs. EB-TP-9 was excavated to 10 ft bgs and backfilled with clean fill.



Photo 27, Clean imported soil was used to backfill all test pits. Excess fill was covered with plastic sheeting and labeled.



Photo 28, SP-1 consisted of excavated cover and burn ash materials from the test pits. It was stockpiled on top of and covered with plastic sheeting.



Photo 29 SP-2 consisted of cover and burn ash material. It was stockpiled on and covered with plastic sheeting.



Photo 30, Bin 1 contains cover and burn ash materials from test pits.



Photo 31, Bin 2 contains cover and burn ash materials from test pits.



Photo 32, Bins 3 and 4 contain cover and burn ash materials from test pits.

APPENDIX B
SUBSURFACE SURVEYS GEOPHYSICAL REPORT





September 1, 2005

GeoSyntec Consultants

11305 Rancho Bernardo Road, Suite 101
San Diego, California 92127

Project/Invoice No. 05-354

Attn: Edward Zielanski

Re: Seismic Refraction Survey, Encinitas Burn Dump, Encinitas, California

This brief letter report is to present the findings of a seismic refraction survey carried out over portions of property located between the San Diego County Sheriff's Substation on the west and a vehicle repair and storage facility on the east, both of which are approximately 1500 feet northeast of the intersection of El Camino Real and Encinitas Boulevard in Encinitas, California (Figs. 1 and 2). The survey was performed on September 1, 2005, and its purpose was to determine the thickness of artificial fill and burn debris overlying the original ground surface. The survey was made up of two separate lines, the first 240 feet long and oriented south-north, and the second 480 feet long and oriented west-east.

A Bison 9024, 24 channel seismograph system, was applied to the task. This instrument has DIFP, digital instantaneous floating point. This translates into a computer-controlled seismograph that records incoming signals at all instrument settings, and these are analyzed by the computer, which then outputs optimum, balanced traces with maximum informational content.

Survey Design – The location of the lines, along with orientations, were shot and recorded as suggested by the client (Fig. 2). The lack of brush, extreme topography, and other above-ground cultural features at this site caused no deviations in survey design from the client's original intentions.

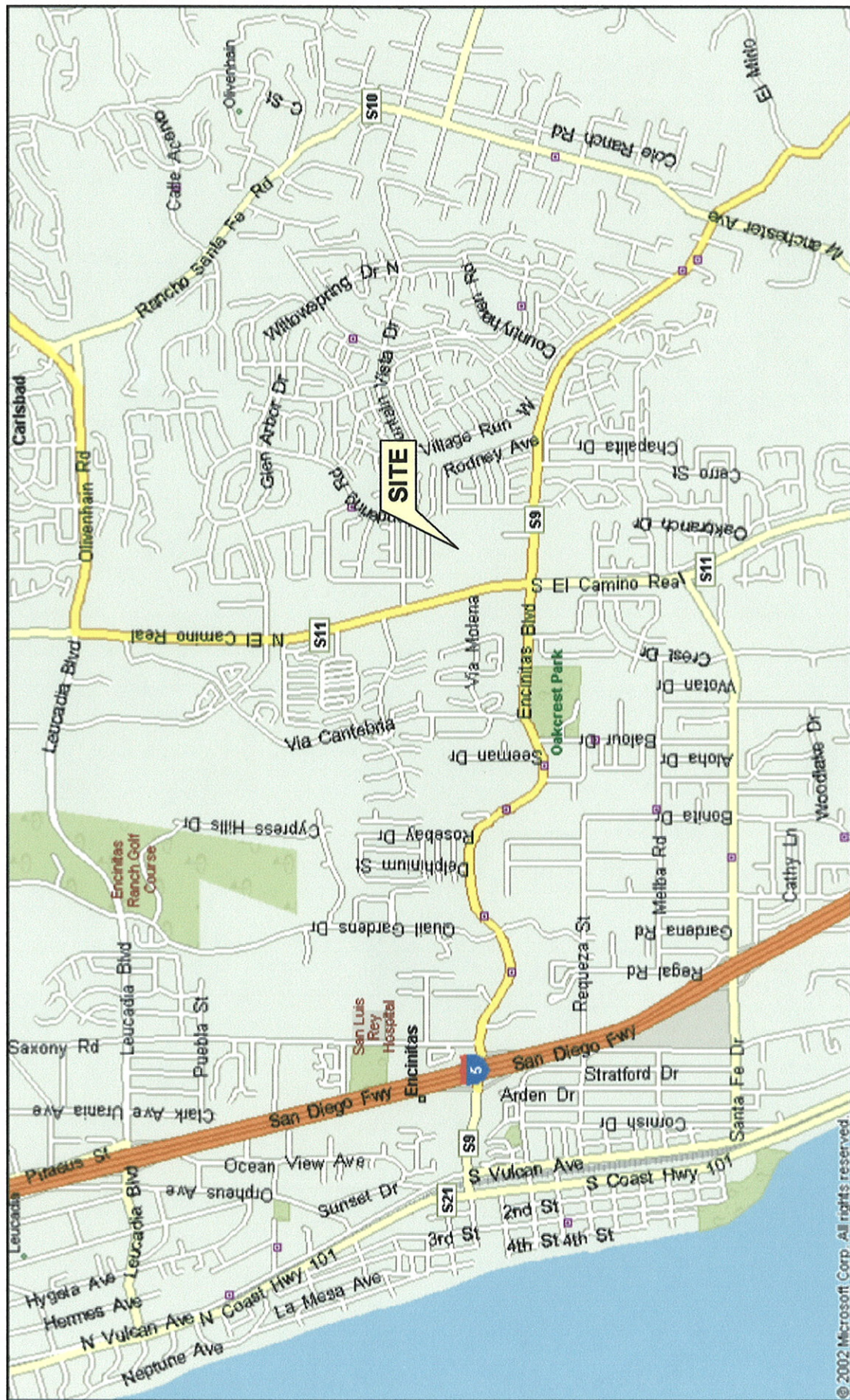
Twenty-four P-wave geophones were used for the first line (Line 1), and were deployed linearly at an interval of 10 feet. Shots were also 10 feet from end geophones, and in addition to these forward and reverse off-end shots, a split-spread shot was fired between geophones 12 and 13. The geophone gap at the split-spread shot was 20 feet in order to accommodate the shot, and this layout arrangement was, therefore, a total length of 240 feet, and permitted an investigation to depths of at least 60 feet.

The second line (Line 2) was composed of two sub-lines, both identical in geometry as that described above for Line 1. Both sub-lines were shot end to end with a one geophone overlap. The data was later merged and processed as one long single line 480 feet long.

The energy source was a heavy-duty 16 pound sledge hammer with an inertial switch which was slammed onto a metal plate that was coupled directly to the ground. Because of the relatively short spreads, the



SITE LOCATION MAP



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FIGURE 1



SEISMIC LINE LOCATION PHOTO



FIGURE 2

sledge hammer source was entirely adequate. Four vertical stacks at each shotpoint was carried out to build energy and to serve as a “noise” abatement strategy. Elevations of all shot and geophone positions were also surveyed in, and then input into the modeling program. The elevation of the forward shot point for each individual line was arbitrarily taken to be 100 feet, and then all other elevations along the given spread were relative to this assumed value for the forward shot point. While the elevations are considered accurate, it should be understood that they are only relative.

Lastly, labeled and painted wooden stakes were planted in the ground at the positions of the first and last geophones for each line. Line locations are further documented with the following Lat/Long coordinates for the beginning and end of each line, and their compass orientations (pointing in the direction of increasing line distance).

Line Number	Lat/Long (deg, min)	Line Orientation (deg)
Line 1, 0 feet	N 33° 02.965' W 117° 15.485'	007
Line 1, 240 feet	N 33° 03.004' W 117° 15.484'	
Line 2, 0 feet	N 33° 03.025' W 117° 15.482'	096
Line 2, 480 feet	N 33° 03.022' W 117° 15.388'	

Note: Map datum WGS 84 used when recording GPS coordinates

Brief Description of the Geophysical Method Applied – Seismic refraction investigates the subsurface by generating arrival time and offset distance information to determine the path and velocity of an elastic disturbance in the ground. This disturbance can be created by shot, hammer, weight drop, or some comparable method for the purpose of putting impulsive energy into the ground. Detectors are laid out at regular intervals in a line to measure the first-arrival energy and the time of that arrival. Shot are normally reversed from one end of the line to the other, to determine whether or not the layering is horizontal or dipping. And the split-spread shot, usually in the middle, gives redundancy to improve the interpretation.

Determining the velocity of, and depth to, layers is possible because, for near-offset geophones, the first-arrival rays (a continuum point on an expanding wave front) follow a direct route through the shallow subsurface. Simultaneously, additional rays travel downwards and are refracted across layer boundaries where there is a difference in elastic and density properties. The critically refracted ray travels along the layer interface, at the speed of the deeper layer, and continuously “feeds” energy back to the surface, to be successively detected, usually, by the far-offset geophones. Therefore, rays originating from the same shotpoint can sample both shallow and deeper parts of the subsurface provided that a correctly deployed array of geophones is used.

In order use this data to produce a correct model of the subsurface, a picking program is first used to determine the precise time of the first-arrival. This program applies such features as zoom, filtering, time stretching, separation of traces, AGC, and balancing of traces. This first-arrival information, geophone positions, shot locations, and layer assignments are then input to a ray-tracing computer program, namely SIP version 4.2 by Rimrock Geophysics, which iteratively honors all refracting surfaces and velocities, and can consider a large number of layers where they are present. A model of the subsurface, showing these detected layers and their velocities, is the end result.

Refraction Survey – Presented here are the final subsurface models for Lines 1 and 2 (Appendix A). The values for both elevation and distance are in feet. Velocities are in feet/sec.

For both lines, only two layers were detected. In both cases, the first shallow layer is clearly soil, uncompacted fill, and burn debris, as suggest by its very slow velocity, averaging only about 1600 feet/sec. This layer ranges in thickness from 4 to 18 feet, and averages about 12 feet.

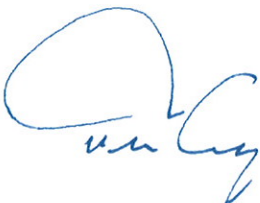
The second layer represents the original ground surface. It is continuous downward to, and presumably significantly beyond, the depth of investigation, approximately 60 feet. Most likely, it is composed of the original surficial material including paleo-soils, alluvium, colluvium, and weather debris. This observation is supported by the fact that Layer 2's velocity is also very slow – averaging only about 2700 feet/sec. Note that there are buried grabens of possible interest located at Line 1, distance 185' and Line 2, distance 380'.

Competent bedrock, or even weathered bedrock, was not detected within 60 feet of the surface, although hints of higher-velocity material were observed in the pre-processed data at about 60-80 feet below ground level towards the end of Line 2, perhaps from line distance 350 to 480 feet. This layer appeared to be right at, or just slightly beyond, our maximum depth of investigation capabilities, and, therefore, the data for this deeper layer was not definitive enough to justify processing and display.

Note that the proposed locations of TP-2, TP-3, TP-4, and TP-5 are located at Line 1 distance -10, 70, 130, and 200, respectively. The locations for TP-6, TP-7, TP-8, and TP-9 are located at Line 2 distance 70, 170, 280, and 430, respectively. These TP locations are also plotted on the velocity models in Appendix A.

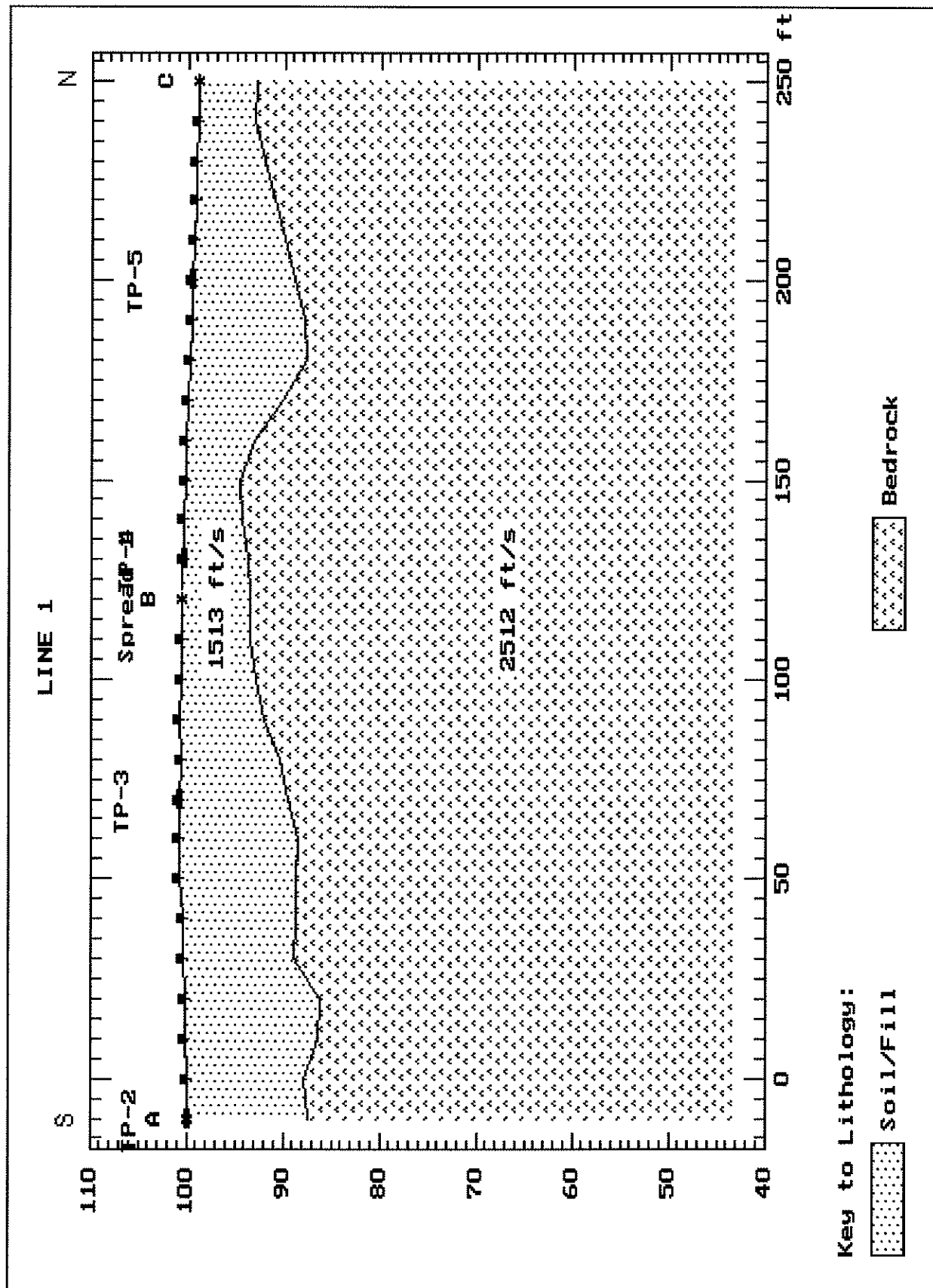
SubSurface Surveys' professional personnel are trained and experienced and have completed thousands of projects since the company's inception in 1988. It is our policy to work diligently to bring this training and experience to bear to acquire quality data sets, which in turn, can provide clues useful in formulating our interpretations. Still, non-uniqueness of interpretations, methodological limitations, and non-target interferences are prevailing problems. SubSurface Surveys make no guarantee either expressed or implied regarding the accuracy of the interpretations presented. And, in no event will SubSurface Surveys be liable for any direct, indirect, special, incidental, or consequential damages resulting from interpretations presented herewith.

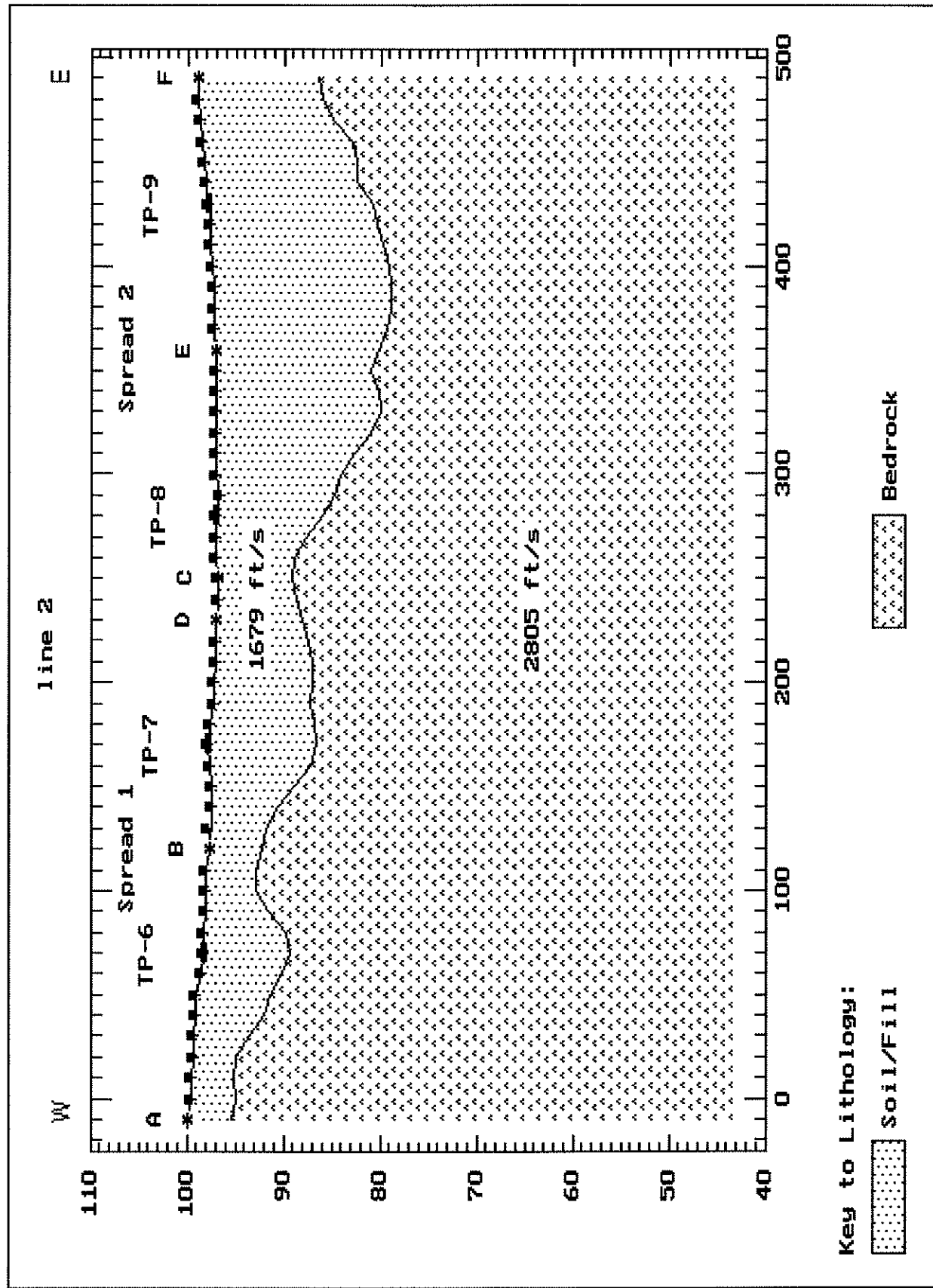
All data acquired in this project are in confidential file in the office. They are available for review by authorized persons at any time. The opportunity to participate in this project is very much appreciated. Please call, if there are questions.



Travis Crosby, GP# 1044
Staff Geophysicist

Appendix A





APPENDIX C
TEST PIT AND BORING LOGS





GEOSYNTEC CONSULTANTS

11305 Rancho Bernardo Rd, Suite 101
San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

PROJECT Encinitas I Burn Dump

PROJECT LOCATION 135 N El Camino Real

PROJECT NUMBER SC0311

KEY SHEET - CLASSIFICATIONS AND SYMBOLS
















GS FORM:
KEY 09/99

EMPIRICAL CORRELATIONS WITH STANDARD PENETRATION RESISTANCE N VALUES *

	N VALUE * (BLOWS/FT)	CONSISTENCY	UNCONFINED COMPRESSIVE STRENGTH (TONS/SQ FT)		N VALUE * (BLOWS/FT)	RELATIVE DENSITY
FINE GRAINED SOILS	0 - 2	VERY SOFT	<0.25	COARSE GRAINED SOILS	0 - 4	VERY LOOSE
	3 - 4	SOFT	0.25 - 0.50		5 - 10	LOOSE
	5 - 8	FIRM	0.50 - 1.00		11 - 30	MEDIUM DENSE
	9 - 15	STIFF	1.00 - 2.00		31 - 50	DENSE
	16 - 30	VERY STIFF	2.00 - 4.00		>50	VERY DENSE
	31 - 50	HARD	>4.00			
	>50	VERY HARD				

* ASTM D 1586; NUMBER OF BLOWS OF 140 POUND HAMMER FALLING 30 INCHES TO DRIVE A 2 IN. O.D., 1.4 IN. I.D. SAMPLER ONE FOOT.

UNIFIED SOIL CLASSIFICATION AND SYMBOL CHART

MAJOR DIVISIONS			SYMBOLS		DESCRIPTIONS	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS		GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		LITTLE OR NO FINES		GP	POORLY GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO.4 SIEVE	GRAVELS WITH FINES		GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
		APPRECIABLE AMOUNT OF FINES		GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
	SAND AND SANDY SOILS	CLEAN SANDS		SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		LITTLE OR NO FINES		SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
	MORE THAN 50% OF MATERIAL COARSER THAN NO. 200 SIEVE SIZE	MORE THAN 50% OF COARSE FRACTION PASSING NO.4 SIEVE	SANDS WITH FINES		SM	SILTY SANDS, SAND-SILT MIXTURES
			APPRECIABLE AMOUNT OF FINES		SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT	
				CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENT	

NOTE: DUAL SYMBOLS USED FOR BORDERLINE CLASSIFICATIONS

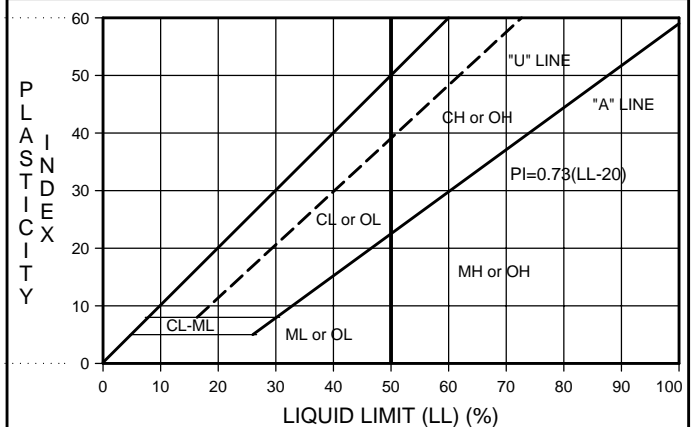
PARTICLE SIZE IDENTIFICATION

BOULDERS	>300 mm
COBBLES	75 - 300 mm
GRAVEL: COARSE	19.0 - 75 mm
GRAVEL: FINE	4.75 - 19 mm
SAND: COARSE	2.00 - 4.75 mm
SAND: MEDIUM	0.425 - 2.00 mm
SAND: FINE	0.075 - 0.425 mm
SILT	0.075 - 0.002 mm
CLAY	<0.002 mm

WELL GRADED - HAVING WIDE RANGE OF GRAIN SIZES AND APPRECIABLE AMOUNTS OF ALL INTERMEDIATE PARTICLE SIZES

POORLY GRADED - PREDOMINANTLY ONE GRAIN SIZE, OR HAVING A RANGE OF SIZES WITH SOME INTERMEDIATE SIZES MISSING

PLASTICITY CHART



OTHER MATERIAL SYMBOLS

Siltstone	Sand
Sandstone	Silt
Siltstone/Claystone	Silty Sand
Claystone	Volcanics
Shale	Artificial Fill
Siltstone/Sandstone	Debris Fill
Conglomerate	Burn Ash
Granitics	

WELL SYMBOLS

BENTONITE
GROUT
FILTER PACK
CONCRETE
NATIVE/ SLOUGH
CENTRAL- IZER
Concrete

SAMPLER AND OTHER SYMBOLS

BULK SAMPLE	Water Level at Time Drilling, or as Shown
SPLIT SPOON	Static Water Level
GRAB SAMPLE	MSL: Mean Sea Level
HAND AUGER	ALS: Above Land Surface
CORE	BLS: Below Land Surface
GROUNDWATER SAMPLE	BTOC: Below Top of Casing
	HSA: Hollow Stem Auger

**GEOSYNTEC CONSULTANTS**

11305 Rancho Bernardo Rd, Suite 101
San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

GS FORM:
BORE 1/99

BOREHOLE RECORD**BORING EB-B1****SHEET 1 OF 1****START DATE 12 Aug 05****ELEVATION 239.00 FT****FINISH DATE 12 Aug 05****DATUM Mean Seal Level****PROJECT Encinitas I Burn Dump****LOCATION 135 N El Camino Real****PROJECT NUMBER SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	Poorly Graded Sand (FILL) 7.5 YR 4/3 brown, dry, loose, few angular gravel, few glass fragments, medium grained sand.			EB-B1-0.5			0.0	Hand Auger to 5 feet bgs.
						100		
5	Silty Sand (BURN ASH) 10 YR 2/2 very dark brown, dry, loose, few angular gravel (~10mm), some glass fragments, fine grained sand.		235	EB-B1-5.5 EB-B1-6.0			0.0	
						100		
	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, dense, no odor, medium grained sand.		230					
10	Total Depth = 10 feet.							

Veryl Wittig
Professional Geologist No. 7115

CONTRACTOR Vironex
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER C. Gale

NORTHING
EASTING
ANGLE Vertical
BEARING -----
PRINTED 21 Oct 05

REMARKS: Backfilled with bentonite/cement grout.

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG NO. WELL (VERYL) SC0311.GPJ GEOSYNTec.GDT 21/10/05



GEOSYNTEC CONSULTANTS

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GS FORM:
BORE 1/99

BOREHOLE RECORD

BORING **EB-B10**

SHEET **1 OF 1**

START DATE **12 Aug 05**

ELEVATION **255.00 FT**

FINISH DATE **12 Aug 05**

DATUM **Mean Seal Level**

PROJECT **Encinitas I Burn Dump**

LOCATION **135 N El Camino Real**

PROJECT NUMBER **SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	No Recovery							
	Poorly Graded Sand (FILL) 10 YR 6/3 pale brown, dry, loose, no odor, medium grained sand.			EB-B10-2.5				
	Silty Sand (BURN ASH) 10 YR 4/2 dark grayish brown, dry, loose, no odor, fine grained sand.					70		
5			250					
	@ 9' becomes 10 YR 2/1 black, with some organics.			EB-B10-10.0		50		
10			245					
						50		
15			240					
						70		
20	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, poorly cemented, no odor, medium grained sand.		235	EB-B10-20.0				Refusal @ 20'.
	Total Depth = 20 feet.							
	Veryl Wittig Professional Geologist No. 7115							

CONTRACTOR **Vironex**
EQUIPMENT **Geoprobe 6600**
DRILL MTHD **Direct Push**
DIAMETER **2"**
LOGGER **C. Gale**

NORTHING
EASTING
ANGLE **Vertical**
BEARING **-----**
PRINTED **21 Oct 05**

REMARKS: **Backfilled with bentonite/cement grout.**

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG NO WELL (VERYL) SC0311.GPJ GEOSYNTEC.GDT 21/10/05



GEOSYNTEC CONSULTANTS

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San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

GS FORM:
BORE 1/99

BOREHOLE RECORD

BORING **EB-B2**

SHEET **1 OF 1**

START DATE **12 Aug 05**

ELEVATION **244.00 FT**

FINISH DATE **12 Aug 05**

DATUM **Mean Seal Level**

PROJECT **Encinitas I Burn Dump**

LOCATION **135 N El Camino Real**

PROJECT NUMBER **SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
5	Poorly Graded Sand (FILL) 2.5 YR 4/3 brown, dry, loose, some angular gravel, no odor, medium grained sand, with some burn ash material. beginning @ 1' some glass fragments. @ 3' becomes 10 YR 5/4 yellowish brown. No more glass fragments.		240	EB-B2-0.5		0.0		Hand Auger to 5 feet bgs.
10	Total Depth = 10 feet.		235	EB-B2-6.0		0.0		

Veryl Wittig
Professional Geologist No. 7115

CONTRACTOR **Vironex**
EQUIPMENT **Geoprobe 6600**
DRILL MTHD **Direct Push**
DIAMETER **2"**
LOGGER **C. Gale**

NORTHING
EASTING
ANGLE **Vertical**
BEARING **-----**
PRINTED **21 Oct 05**

REMARKS: **Backfilled with bentonite/cement grout.**

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG NO WELL (VERYL) SC0311.GPJ GEOSYNTCC.GDT 21/10/05



GEOSYNTEC CONSULTANTS

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San Diego, CA 92127
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GS FORM:
BORE 1/99

BOREHOLE RECORD

BORING **EB-B4**

SHEET **1 OF 1**

START DATE **12 Aug 05**

ELEVATION **255.00 FT**

FINISH DATE **12 Aug 05**

DATUM **Mean Seal Level**

PROJECT **Encinitas I Burn Dump**

LOCATION **135 N El Camino Real**

PROJECT NUMBER **SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	Poorly Graded Sand (FILL) 7.5 YR 4/3 brown, dry, loose, no odor, medium grained sand.			EB-B4-0.5			0.0	
	Silty Sand (BURN ASH) 10 YR 2/2 very dark brown, soft, dry, no odor, fine grained sand, glass fragments.			EB-B4-2.5		100	2.8	
	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, poorly cemented, no odor, medium grained sand. Total Depth = 4.25 feet.			EB-B4-4.0				
								Refusal encountered @ 4.25'. Repositioned and again encountered refusal @ 4.25'.

Veryl Wittig
Professional Geologist No. 7115

CONTRACTOR **Vironex**
EQUIPMENT **Geoprobe 6600**
DRILL MTHD **Direct Push**
DIAMETER **2"**
LOGGER **C. Gale**

NORTHING
EASTING
ANGLE **Vertical**
BEARING **-----**
PRINTED **21 Oct 05**

REMARKS: **Backfilled with bentonite/cement grout.**

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG NO WELL (VERYL) SC0311.GPJ GEOSYNTec.GDT 21/10/05

**GEOSYNTEC CONSULTANTS**

11305 Rancho Bernardo Rd, Suite 101
San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

GS FORM:
BORE 1/99

BOREHOLE RECORD**BORING EB-B7****SHEET 1 OF 1****START DATE 12 Aug 05****ELEVATION 261.00 FT****FINISH DATE 12 Aug 05****DATUM Mean Seal Level****PROJECT Encinitas I Burn Dump****LOCATION 135 N El Camino Real****PROJECT NUMBER SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	No Recovery		260					
	Poorly Graded Sand (FILL) 10 YR 6/3 pale brown, dry, loose, no odor, medium grained sand.			EB-B7-3.0		50	0.0	
5	Silty Sand (BURN ASH) 10 YR 2/2 very dark brown, dry, loose, few angular gravel, glass fragments, fine grained sand. @ 4.5' 2" thick layer of rust coloring.		255	EB-B7-5.0				
						25	0.0	
10	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, poorly cemented, no odor, medium grained sand.		250	EB-B7-12.0		100	0.0	Refusal @ 12'.
	Total Depth = 12 feet.							
	Veryl Wittig Professional Geologist No. 7115							

CONTRACTOR Vironex
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER C. Gale

NORTHING
EASTING
ANGLE Vertical
BEARING -----
PRINTED 21 Oct 05

REMARKS: Backfilled with bentonite/cement grout.

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORING LOG NO WELL (VERYL) SC0311.GPJ GEOSYNTec.GDT 21/10/05

**GEOSYNTEC CONSULTANTS**

11305 Rancho Bernardo Rd, Suite 101
San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

GS FORM:
BORE 1/99

BOREHOLE RECORD**BORING EB-B8****SHEET 1 OF 1****START DATE 12 Aug 05****ELEVATION 263.00 FT****FINISH DATE 12 Aug 05****DATUM Mean Seal Level****PROJECT Encinitas I Burn Dump****LOCATION 135 N El Camino Real****PROJECT NUMBER SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	No Recovery							
5	Poorly Graded Sand (FILL) 10 YR 6/2 light brownish gray, dry, loose, no odor, some angular gravel, medium grained sand.		260	EB-B8-4.0		25	0.0	PID ran out of batteries.
						70		
			255					Initially no recovery from 5-10', repositioned and recovered ~70% from 5-10'.
10	Silty Sand (BURN ASH) 10 YR 2/2 very dark brown, dry, loose, no odor, glass fragments, fine grained sand.					70		
			250					
15				EB-B8-15.0				
	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, loose, no odor, medium grained sand.			EB-B8-18.0		80		Refusal at 17.75'.
	Total Depth = 17.75 feet.							
	Veryl Wittig Professional Geologist No. 7115							

CONTRACTOR Vironex
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER C. Gale

NORTHING
EASTING
ANGLE Vertical
BEARING -----
PRINTED 21 Oct 05

REMARKS: Backfilled with bentonite/cement grout.

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BOREHOLE LOG NO WELL (VERYL) SC0311.GPJ GEOSYNTEC.GDT 21/10/05

**GEOSYNTEC CONSULTANTS**

11305 Rancho Bernardo Rd, Suite 101
San Diego, CA 92127
Tel: (858) 674-6559 Fax: (858) 674-6586

GS FORM:
BORE 1/99

BOREHOLE RECORD**BORING EB-B9****SHEET 1 OF 1****START DATE 12 Aug 05****ELEVATION 263.00 FT****FINISH DATE 12 Aug 05****DATUM Mean Seal Level****PROJECT Encinitas I Burn Dump****LOCATION 135 N El Camino Real****PROJECT NUMBER SC0311**

DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOLIC LOG	ELEVATION (ft)	SAMPLES				COMMENTS
				NUMBER	TYPE	RECOVERY (%)	PID READING (ppm)	
	No Recovery							
	Poorly Graded Sand (FILL) 10 YR 6/3 pale brown, dry, loose, no odor, medium grained sand, few glass fragments.		260	EB-B9-2.5		60	0.0	Glass fragments observed at ground surface.
5	Silty Sand (BURN ASH) 10 YR 2/2 very dark brown, dry loose, no odor, fine grained sand, glass fragments, rust color discoloration from 4-5 feet.			EB-B9-5.0			0.0	
10			255			50		
15			250			0		Core barrel dropped from 13' to 15' (possible void). Reposition ~1 foot south and try again. Core barrel fell from 13 to 15 again. No recovery from 10 to 15.
	Poorly Graded Sand (SP) 10 YR 6/4 light yellowish brown, dry, poorly cemented, no odor, medium grained sand.		245	EB-B9-18.0		70		Refusal @ 18'.
	Total Depth = 18 feet.							
	Veryl Wittig Professional Geologist No. 7115							

CONTRACTOR Vironex
EQUIPMENT Geoprobe 6600
DRILL MTHD Direct Push
DIAMETER 2"
LOGGER C. Gale

NORTHING
EASTING
ANGLE Vertical
BEARING -----
PRINTED 21 Oct 05

REMARKS: Backfilled with bentonite/cement grout.

COORDINATE SYSTEM:
SEE KEY SHEET FOR SYMBOLS AND ABBREVIATIONS

BORING LOG NO WELL (VERYL) SC0311.GPJ GEOSNTEC.GDT 21/10/05



GEOSYNTEC CONSULTANTS

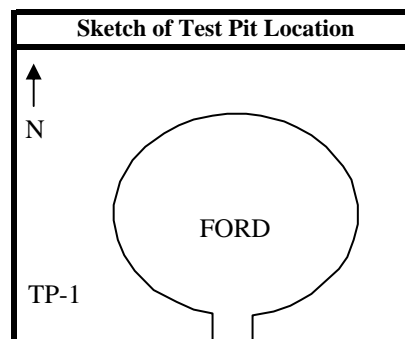
TEST PIT LOG

Project Name: Encinitas I Burn Dump
Project Number: SC0311
Site: Encinitas

Date: September 14, 2005
Weather: Overcast
Test Pit Logged By: C. Gale
Samples Collected by: C. Gale

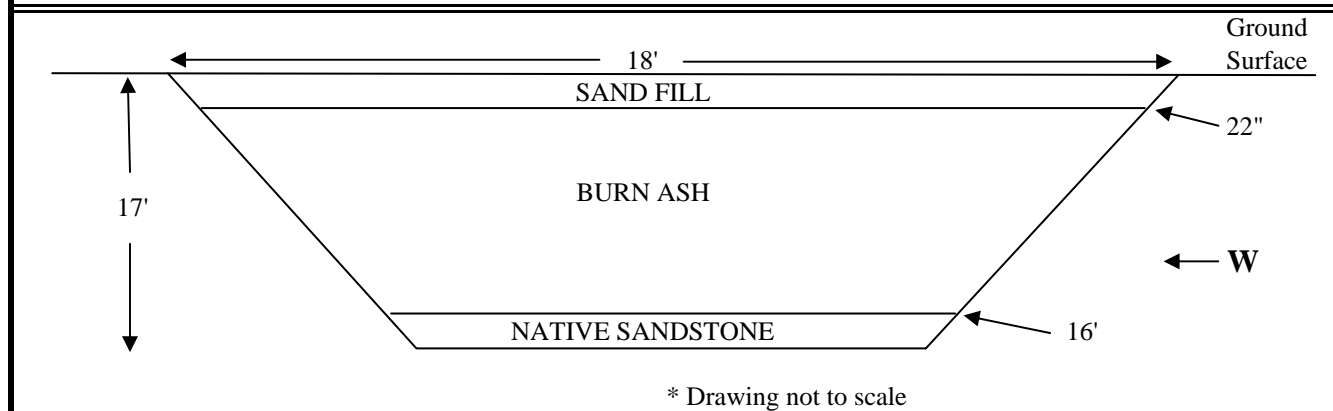
Test Pit ID: **EB-TP1**
Test Pit Width: 18"
Test Pit Depth: 17'
Equipment Used: Backhoe Deere 710 G
Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
Immiscible Layer: Y (N)
Start/Stop Time: 0800/0915



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (FILL), 10YR 6/4 light yellowish brown, dry, loose, no odor.	0.0	EB-TP1-1.0
2.0	Silty sand (BURN ASH), 10YR 3/2 very dark grayish brown, dry, loose, metal and glass fragments and glass bottles, some blue coloration in soil.	0.0	EB-TP1-4.0
16.0	Poorly-graded sand (SP), 10YR 7/4 very pale brown, medium-grained sand, dry, medium dense, no odor.		EB-TP1-17.0
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

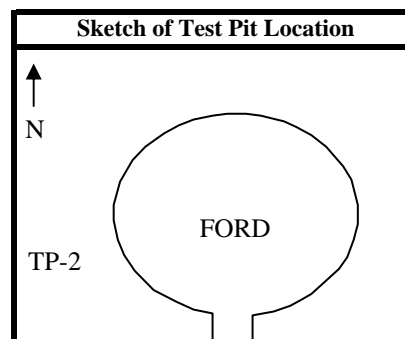
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 14, 2005
 Weather: Partly Cloudy
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

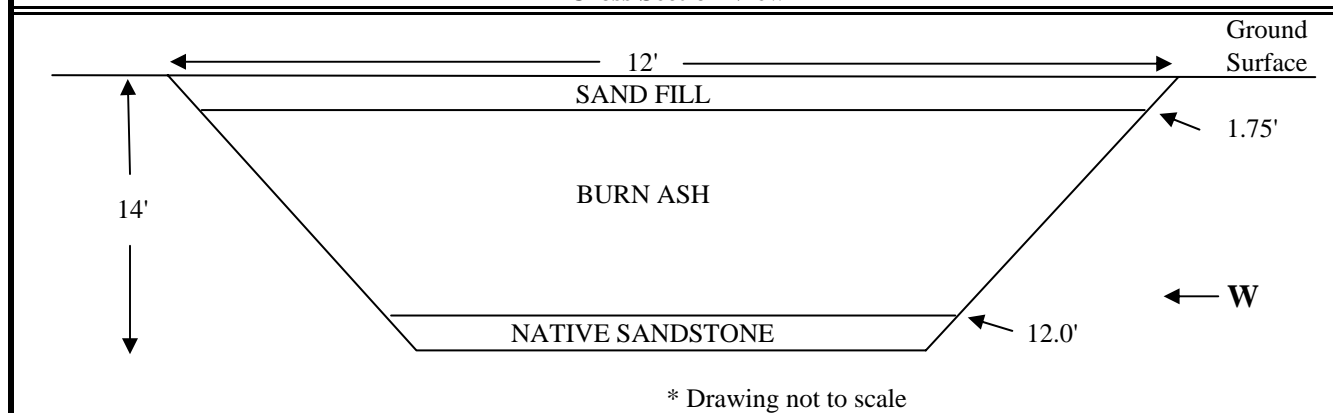
Test Pit ID: **EB-TP2**
 Test Pit Width: 18"
 Test Pit Depth: 14'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y (N)
 Start/Stop Time: 0920/1020



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (FILL), 10YR 4/4 dark yellowish brown, dry, loose, no odor.	0.0	EB-TP2-1.0
1.75	Poorly-graded sand (BURN ASH), 10YR 3/4 dark yellowish brown, dry, loose, glass, metal, and plastic fragments.		EB-TP2-4.5
6.0	Silty sand, 10YR 2/1 black, dry, loose, burn ash fill material.		
12.0	Poorly-graded sand (SP), 10YR 7/4 very pale brown, dry, no odor, medium-grained sand, medium dense.		EB-TP1-13.5
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

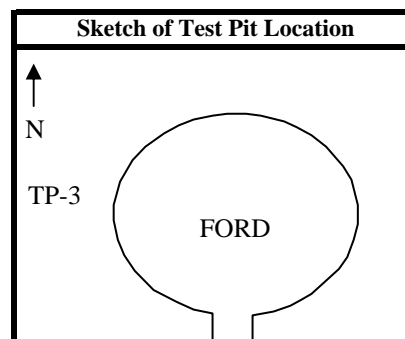
TEST PIT LOG

Project Name: Encinitas I Burn Dump
Project Number: SC0311
Site: Encinitas

Date: September 14, 2005
Weather: Partly Cloudy
Test Pit Logged By: C. Gale
Samples Collected by: C. Gale

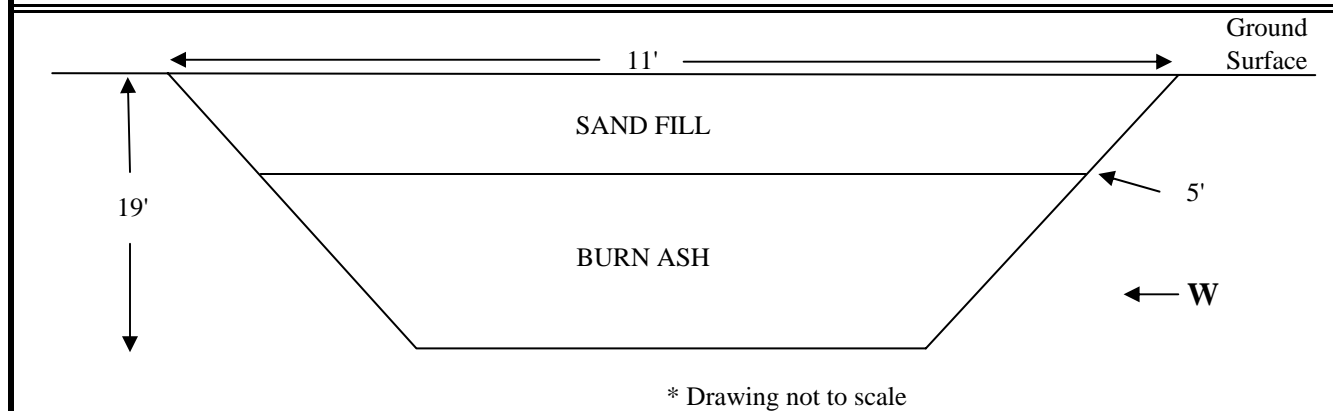
Test Pit ID: **EB-TP3**
Test Pit Width: 18"
Test Pit Depth: 19'
Equipment Used: Backhoe Deere 710 G
Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
Immiscible Layer: Y (N)
Start/Stop Time: 1025/1545



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (FILL), 10YR 6/3 pale brown, medium grained sand, dry, loose, no odor.	0.0	EB-TP3-1.0
5.0	Silty sand (BURN ASH), 10YR 2/2 very dark brown, dry, loose, glass, metal, tires, brick, light blue material with waxy-luster, plastic, and ceramic tile.	0.0	EB-TP3-6.0
18.0	Becomes mixed with poorly-graded sand (SP), 10YR 5/6 yellowish brown, moist, no odor, glass and metal fragments.		
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

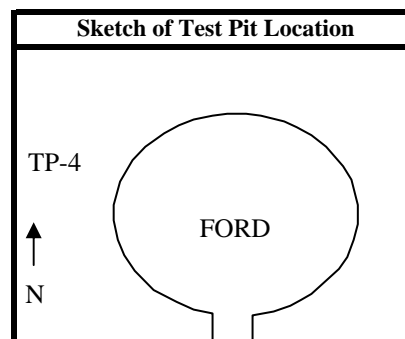
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 14, 2005
 Weather: Sunny
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

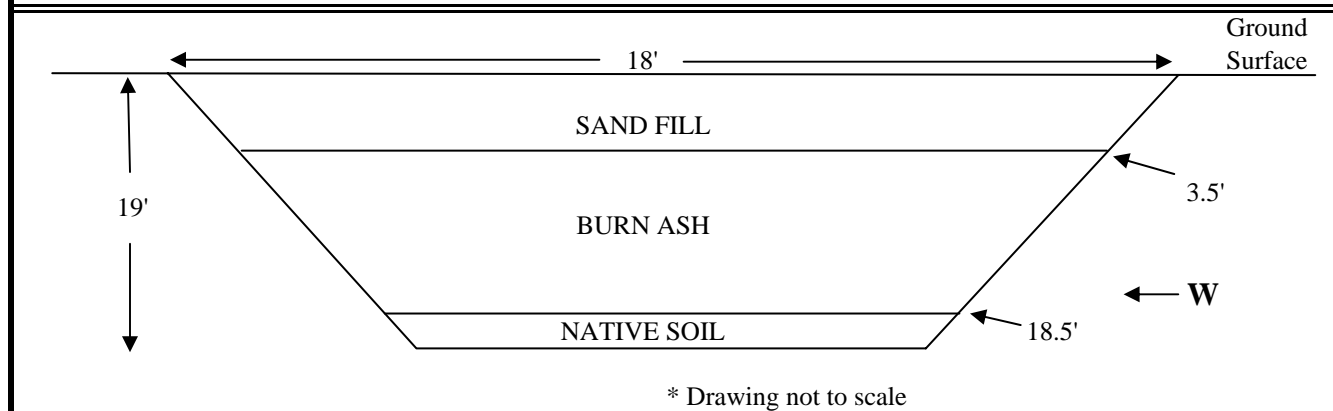
Test Pit ID: **EB-TP4**
 Test Pit Width: 18"
 Test Pit Depth: 19'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y(N)
 Start/Stop Time: 1550/1635



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (FILL), 10YR 5/3 brown, medium grained sand, dry, loose, some large (~10 cm) cobbles.	0.0	EB-TP4-1.0
3.5	Silty sand (BURN ASH), 10YR2/2 very dark brown, dry, loose, no odor, glass and metal fragments, wire, and plastic.	0.0	EB-TP4-4.0
6.0	Becomes 10YR3/2 very dark grayish brown.	0.0	EB-TP4-19.0
18.5	Poorly-graded sand (SP), 10YR 6/4 light yellowish brown, medium-grained sand, dry, loose to medium dense, no odor.	0.0	EB-TP4-19.0
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

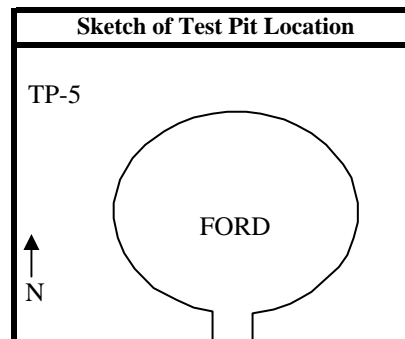
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 15, 2005
 Weather: Overcast
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

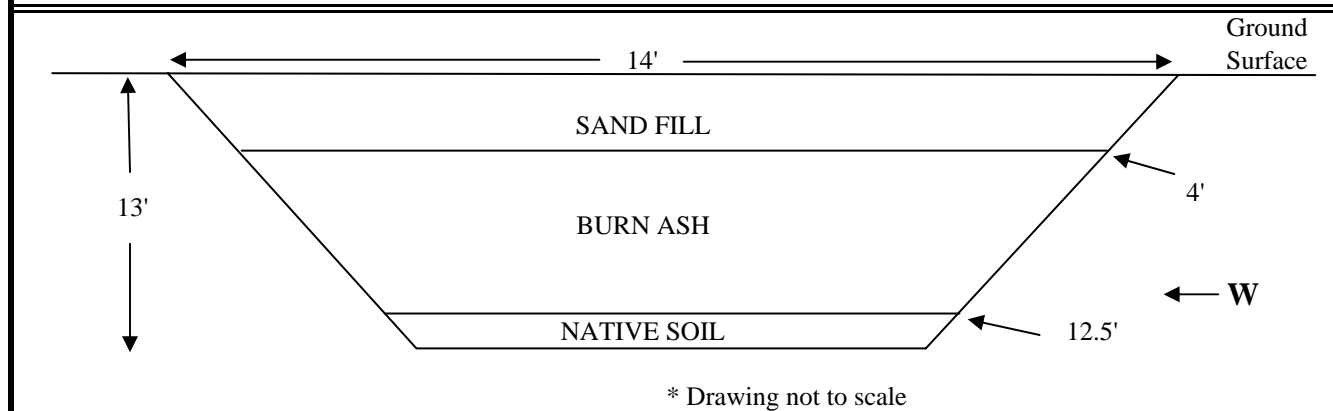
Test Pit ID: **EB-TP5**
 Test Pit Width: 18"
 Test Pit Depth: 13'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y ☒
 Start/Stop Time: 0735/0805



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand with gravel (FILL), 10YR 6/6 brownish yellow, dry, loose, no odor, medium-grained sand.	0.0	EB-TP5-1.0
4.0	Silty sand (BURN ASH), 10YR2/2 very dark brown, dry, loose, no odor, glass, plastic and organic material.	0.0	EB-TP5-4.0
12.5	Poorly-graded sand (SP), 10YR 5/3 brown, moist, loose to medium dense, medium- to coarse-grained sand.	0.0	EB-TP5-12.5
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

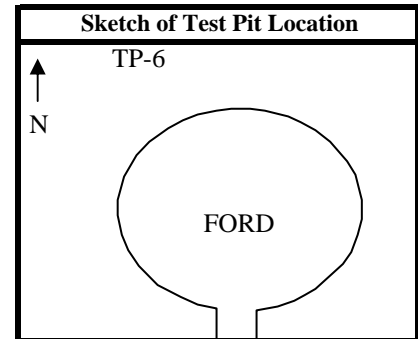
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 15, 2005
 Weather: Overcast
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

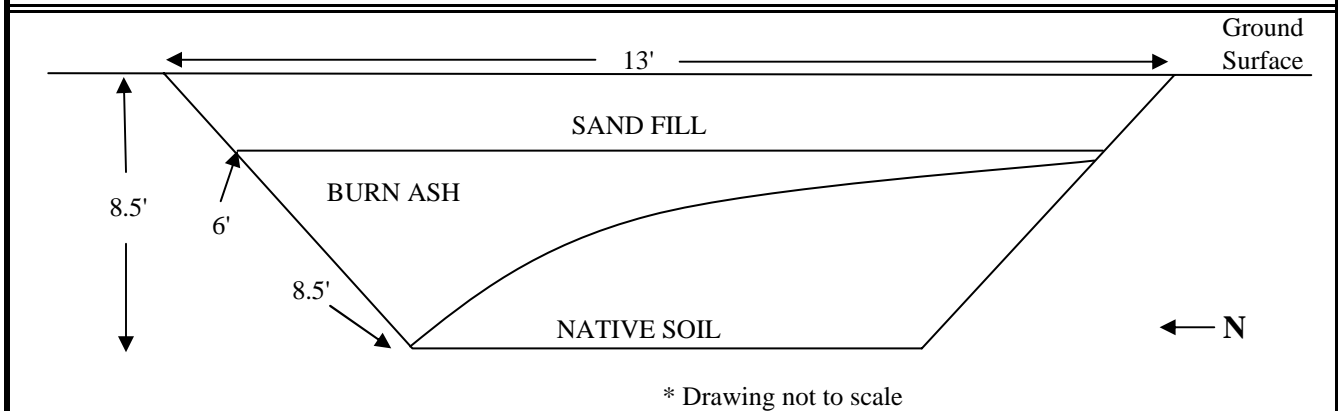
Test Pit ID: **EB-TP6**
 Test Pit Width: 18"
 Test Pit Depth: 8.5'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y (N)
 Start/Stop Time: 0810/0845



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand with gravel (FILL), 10YR 6/4 light yellowish brown, dry, loose, few glass fragments, medium-grained sand.	0.0	EB-TP6-1.0
6.0	Silty sand (BURN ASH), 10YR 2/2 very dark brown, dry, loose, no odor, glass and metal fragments, layer becomes thicker to the north.	0.0	EB-TP6-6.0
8.5	Poorly-graded sand (SP), 10YR 7/3 pale yellow, moist, dense, no odor, medium- to coarse-grained sand.	0.0	EB-TP6-8.5
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

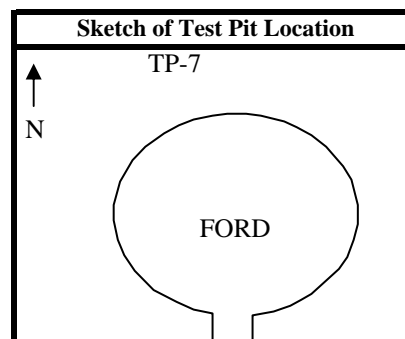
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 15, 2005
 Weather: Overcast
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

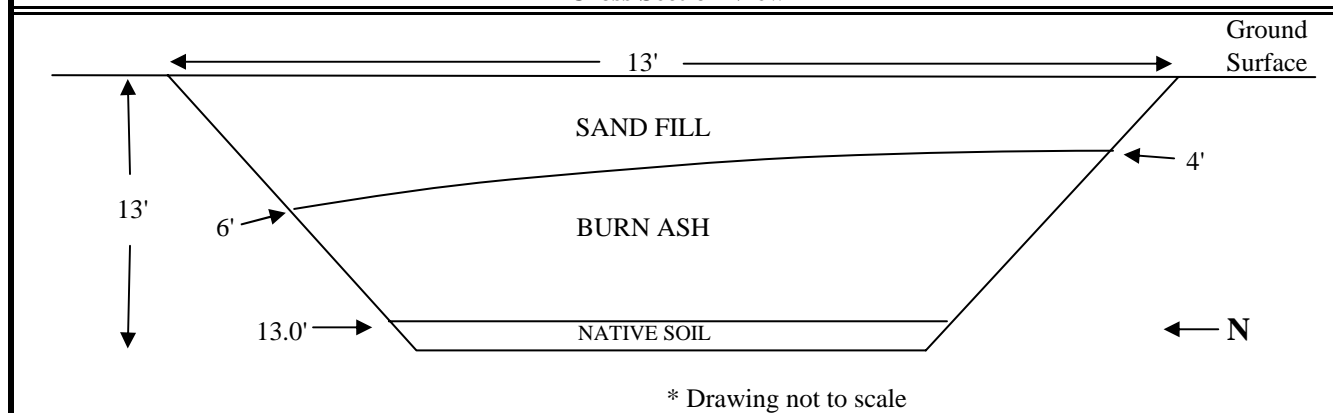
Test Pit ID: TP-7
 Test Pit Width: 18"
 Test Pit Depth: 13'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y (N)
 Start/Stop Time: 0850/0940



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded gravel with sand (FILL), 10YR 6/4 light yellowish brown, dry, loose, fine-grained sand.	0.0	EB-TP7-1.0
1.5	Poorly-graded sand (BURN ASH), 10YR 6/4 light yellowish brown, moist, dense, no odor, few glass and plastic fragments, medium-grained sand, layer becomes thicker to the north.		
5.0	Poorly-graded sand, 10YR4/6 dark yellowish brown, dry, loose, burn ash fill material.	0.0	EB-TP7-6.5
13.0	Poorly-graded sand (SP), 2.5YR 7/4 pale yellow, medium-grained sand, dry, dense, no odor.	0.0	EB-TP7-13.0
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

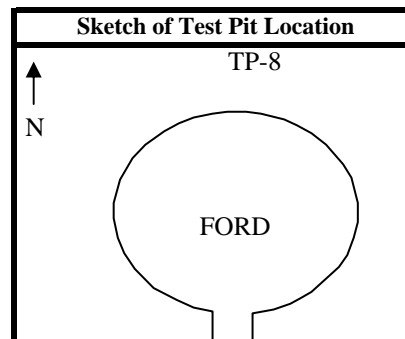
TEST PIT LOG

Project Name: Encinitas I Burn Dump
Project Number: SC0311
Site: Encinitas

Date: September 15, 2005
Weather: Overcast
Test Pit Logged By: R.Flynn
Samples Collected by: C. Gale

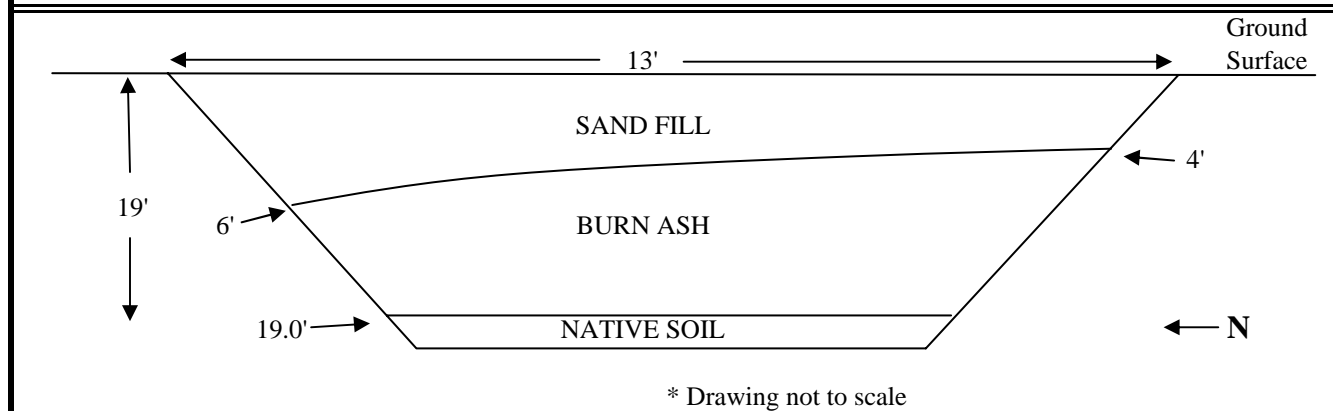
Test Pit ID: TP-8
Test Pit Width: 18"
Test Pit Depth: 19'
Equipment Used: Backhoe Deere 710 G
Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
Immiscible Layer: Y ☒
Start/Stop Time: 0945/1050



Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (SP), 2.5YR 7/6 yellow, dry, loose, medium-grained sand.	0.0	EB-TP8-1.0
6.0	Silty sand (BURN ASH), 10YR 2/2 very dark brown, moist, loose, some glass, ceramics, bricks, and white chalky material.	0.0	EB-TP8-6.0
19.0	Poorly-graded sand (SP), 2.5YR 8/2 pale yellow, medium-grained sand, dry, dense.	0.0	EB-TP8-19.0
	Backfilled with clean sand		

Cross Section View





GEOSYNTEC CONSULTANTS

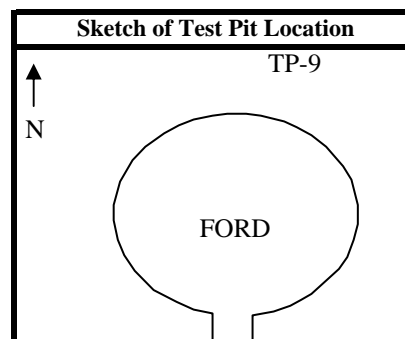
TEST PIT LOG

Project Name: Encinitas I Burn Dump
 Project Number: SC0311
 Site: Encinitas

Date: September 15, 2005
 Weather: Overcast
 Test Pit Logged By: C. Gale
 Samples Collected by: C. Gale

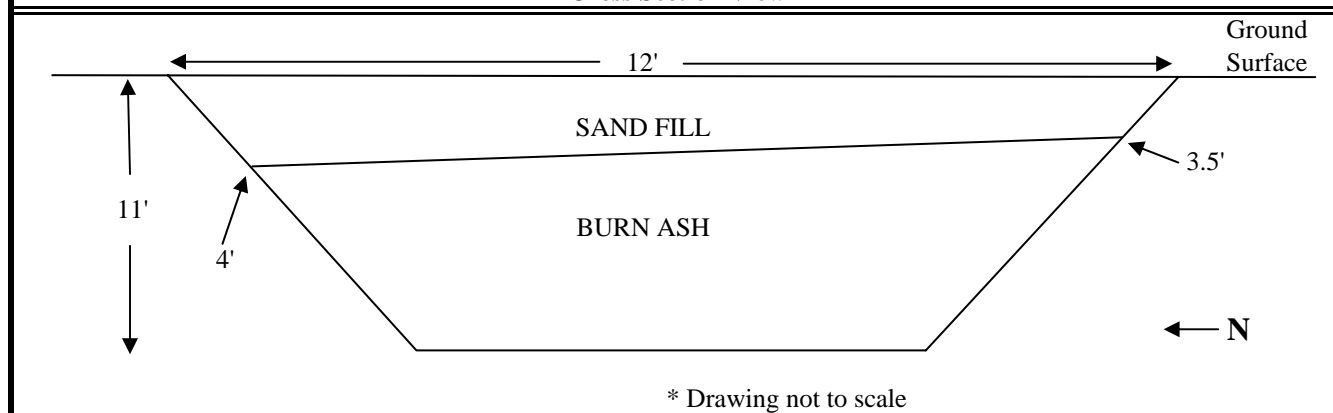
Test Pit ID: **TP-9**
 Test Pit Width: 18"
 Test Pit Depth: 11'
 Equipment Used: Backhoe Deere 710 G
 Subcontractor: BL HALL

Depth to Water (ft): Not Encountered
 Immiscible Layer: Y (N)
 Start/Stop Time: 1110/1210



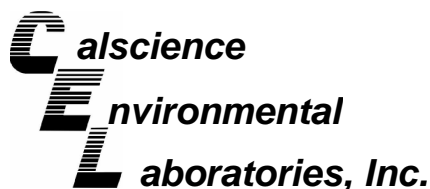
Depth (ft)	Description	PID (ppm)	Sample ID/Comments
0.0	Poorly-graded sand (FILL), 2.5YR 7/6 yellow, dry, loose, medium-grained sand.	0.0	EB-TP9-1.0
3.0	Silty sand (FILL), 10YR 4/2 dark grayish brown, dry, loose, no odor, medium-grained sand.	0.0	EB-TP9-3.0
3.5-4.0	(BURN ASH) becomes 10YR 2/2 very dark brown with glass, brick, and tile fragments, burn ash fill material @ 3.5' on southern edge and 4' on northern edge.		
10.0	Lense of white building/demolition/construction material mixed with some pink, powder-like material.		
	Backfilled with clean sand		

Cross Section View



APPENDIX D
LABORATORY ANALYTICAL REPORTS





October 17, 2005

Ed Zielanski
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Subject: **Calscience Work Order No.: 05-09-0996**
Client Reference: **Encinitas I Burnsite / SC0311**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/16/2005 and analyzed in accordance with the attached chain-of-custody.

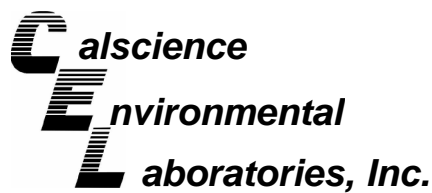
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 1 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP5-1.0	05-09-0996-1	09/15/05	Solid	09/19/05	09/20/05	050919L13

Parameter	Result	RL	DF	Qual	Units
Lead	5.45	0.5	1		mg/kg

EB-TP5-4.0	05-09-0996-2	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	207	0.500	1		mg/kg

EB-TP5-12.5	05-09-0996-3	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	4.22	0.5	1		mg/kg

EB-TP6-1.0	05-09-0996-4	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	21.2	0.5	1		mg/kg

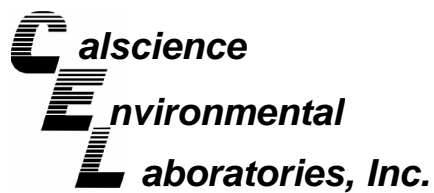
EB-TP6-6.0	05-09-0996-5	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	153	0.500	1		mg/kg

EB-TP6-8.5	05-09-0996-6	09/15/05	Solid	09/23/05	09/23/05	050923L01A
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Parameter	Result	RL	DF	Qual	Units
Lead	3.77	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 2 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP7-1.0	05-09-0996-7	09/15/05	Solid	09/19/05	09/20/05	050919L13

Parameter	Result	RL	DF	Qual	Units
Lead	14.8	0.5	1		mg/kg

EB-TP7-6.5	05-09-0996-8	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	128	0.500	1		mg/kg

EB-TP7-13.0	05-09-0996-9	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	2.19	0.5	1		mg/kg

EB-TP8-1.0	05-09-0996-10	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	7.29	0.5	1		mg/kg

EB-TP8-6.0	05-09-0996-11	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	54.8	0.5	1		mg/kg

EB-TP8-19.0	05-09-0996-12	09/15/05	Solid	09/19/05	09/20/05	050919L13
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Parameter	Result	RL	DF	Qual	Units
Lead	6.03	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP9-1.0	05-09-0996-13	09/15/05	Solid	09/19/05	09/20/05	050919L13

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	3.60	0.5	1		mg/kg

EB-TP9-3.0	05-09-0996-14	09/15/05	Solid	09/19/05	09/20/05	050919L13
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	40.7	0.5	1		mg/kg

EB-BIN-3A, 3B	05-09-0996-23	09/15/05	Solid	09/19/05	09/20/05	050919L13
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	53.7	0.5	1		mg/kg

EB-BIN-4A, 4B	05-09-0996-24	09/15/05	Solid	09/19/05	09/20/05	050919L13
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	105	0.500	1		mg/kg

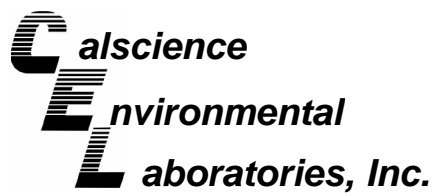
EB-SP-1A, 1B	05-09-0996-25	09/15/05	Solid	09/19/05	09/20/05	050919L13
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	36.0	0.5	1		mg/kg

EB-SP-2A, 2B	05-09-0996-26	09/15/05	Solid	09/19/05	09/20/05	050919L02
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	81.6	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	097-01-002-6,824	N/A	Solid	09/19/05	09/19/05	050919L13

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

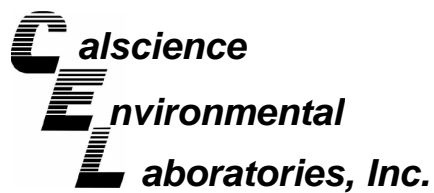
Method Blank	097-01-002-6,828	N/A	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

Method Blank	097-01-002-6,842	N/A	Solid	09/23/05	09/23/05	050923L01A
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 1311
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

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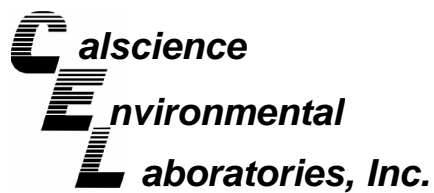
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-BIN-4A, 4B	05-09-0996-24	09/15/05	Solid	10/06/05	10/10/05	051007L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	0.306	0.1	1		mg/L

Method Blank	097-05-001-2,875	N/A	Solid	10/06/05	10/10/05	051007L01
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	ND	0.100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: CCR 66261.126
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

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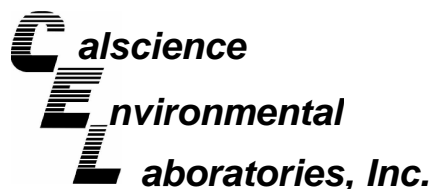
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-BIN-4A, 4B	05-09-0996-24	09/15/05	Solid	10/06/05	10/11/05	051010L5

Parameter	Result	RL	DF	Qual	Units
Lead	5.68	0.1	1		mg/L

Method Blank	097-05-006-2,897	N/A	Solid	10/06/05	10/11/05	051010L5
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP5-4.0	05-09-0996-2	09/15/05	Solid	09/23/05	09/25/05	050923B10

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	9.5		1	
C8	ND		1		C23-C24	16		1	
C9-C10	0.43		1		C25-C28	78		1	
C11-C12	0.14		1		C29-C32	88		1	
C13-C14	1.1		1		C33-C36	59		1	
C15-C16	7.6		1		C37-C40	24		1	
C17-C18	5.6		1		C41-C44	16		1	
C19-C20	6.9		1		C7-C44 Total	310	5	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	94	62-152	

EB-TP6-6.0	05-09-0996-5	09/15/05	Solid	09/23/05	09/25/05	050923B10
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	5.5		1	
C8	ND		1		C23-C24	1.9		1	
C9-C10	ND		1		C25-C28	4.6		1	
C11-C12	0.015		1		C29-C32	3.9		1	
C13-C14	0.63		1		C33-C36	4.9		1	
C15-C16	1.7		1		C37-C40	4.3		1	
C17-C18	2.3		1		C41-C44	3.6		1	
C19-C20	2.4		1		C7-C44 Total	36	5	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	91	62-152	

Method Blank	098-03-002-4,849	N/A	Solid	09/23/05	09/24/05	050923B10
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
TPH as Diesel	ND	5.0	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Decachlorobiphenyl	105	62-152		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0996
 Preparation: EPA 3545
 Method: EPA 8310
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP5-4.0	05-09-0996-2	09/15/05	Solid	09/26/05	09/28/05	050926L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	76	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	65	40-160							

EB-TP6-6.0	05-09-0996-5	09/15/05	Solid	09/26/05	09/28/05	050926L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	97	40-160							

Method Blank	099-07-002-577	N/A	Solid	09/26/05	09/27/05	050926L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	76	40-160							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0996
 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number				Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
EB-TP5-4.0	05-09-0996-2				09/15/05	Solid	09/26/05	09/29/05	050926L11	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248		ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254		ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260		ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262		ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:		REC (%)	Control Limits		Qual
Decachlorobiphenyl	55	50-130			2,4,5,6-Tetrachloro-m-Xylene		54	50-130		
EB-TP6-6.0	05-09-0996-5				09/15/05	Solid	09/26/05	09/29/05	050926L11	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248		ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254		ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260		ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262		ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:		REC (%)	Control Limits		Qual
Decachlorobiphenyl	74	50-130			2,4,5,6-Tetrachloro-m-Xylene		68	50-130		
Method Blank	099-07-009-715				N/A	Solid	09/26/05	09/27/05	050926L11	
Parameter	Result	RL	DF	Qual	Parameter		Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248		ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254		ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260		ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262		ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:		REC (%)	Control Limits		Qual
Decachlorobiphenyl	82	50-130			2,4,5,6-Tetrachloro-m-Xylene		80	50-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0996
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP5-4.0	05-09-0996-2	09/15/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	112	73-139			1,2-Dichloroethane-d4	114	73-145		
Toluene-d8	99	90-108			1,4-Bromofluorobenzene	84	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0996
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP6-6.0	05-09-0996-5	09/15/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	115	73-139			1,2-Dichloroethane-d4	119	73-145		
Toluene-d8	99	90-108			1,4-Bromofluorobenzene	82	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0996
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

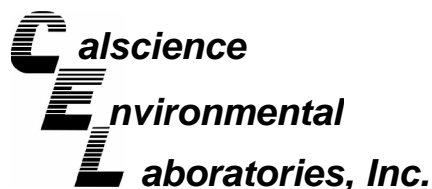
Project: Encinitas I Burnsite / SC0311

Page 3 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	099-10-005-11,216	N/A	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	105	73-139			1,2-Dichloroethane-d4	109	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	86	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996

Project: Encinitas I Burnsite / SC0311

Page 1 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP5-1.0	05-09-0996-1	09/15/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.34	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP5-4.0	05-09-0996-2	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.76	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP5-12.5	05-09-0996-3	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.74	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

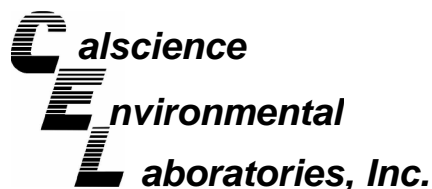
EB-TP6-1.0	05-09-0996-4	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.88	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP6-6.0	05-09-0996-5	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.97	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996

Project: Encinitas I Burnsite / SC0311

Page 2 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP6-8.5	05-09-0996-6	09/15/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.94	0.01	1		pH unit	09/23/05	09/23/05	EPA 9045C

EB-TP7-1.0	05-09-0996-7	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.28	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP7-6.5	05-09-0996-8	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.05	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

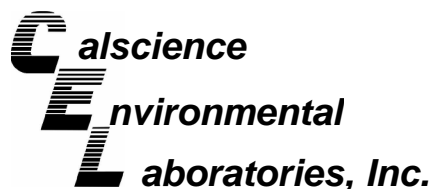
EB-TP7-13.0	05-09-0996-9	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.02	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP8-1.0	05-09-0996-10	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.61	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996

Project: Encinitas I Burnsite / SC0311

Page 3 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP8-6.0	05-09-0996-11	09/15/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.44	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP8-19.0	05-09-0996-12	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.11	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP9-1.0	05-09-0996-13	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.57	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

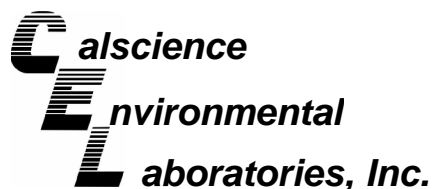
EB-TP9-3.0	05-09-0996-14	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.35	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-BIN-3A, 3B	05-09-0996-23	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.85	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0996

Project: Encinitas I Burnsite / SC0311

Page 4 of 4

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-BIN-4A, 4B	05-09-0996-24	09/15/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.08	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

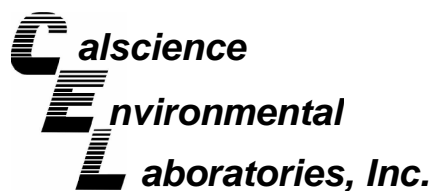
EB-SP-1A, 1B	05-09-0996-25	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.12	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-SP-2A, 2B	05-09-0996-26	09/15/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.05	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

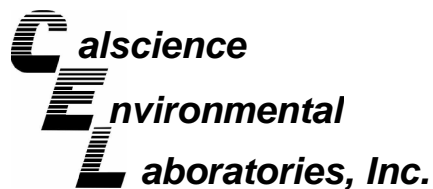
Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-0995-9	Solid	ICP 3300	09/19/05	09/19/05	050919S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	75	92	75-125	10	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
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San Diego, CA 92127-1461

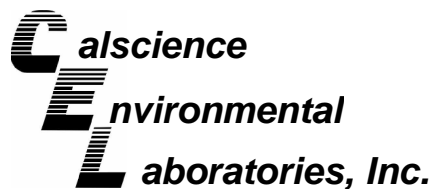
Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1082-1	Solid	ICP 3300	09/19/05	09/20/05	050919S13

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	45	18	75-125	10	0-20	3

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

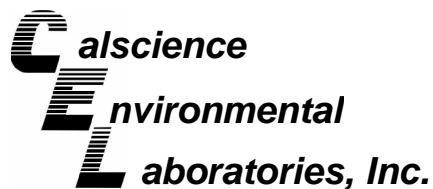
Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1295-6	Solid	ICP 3300	09/23/05	09/26/05	050923S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	105	102	75-125	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

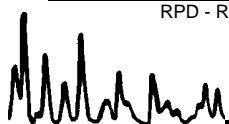
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Work Order No: 05-09-0996
Preparation: EPA 1311
Method: EPA 6010B

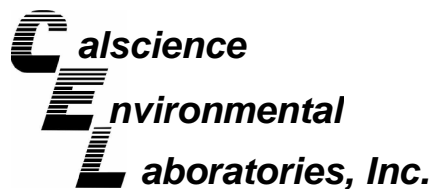
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0315-1	Solid	ICP 3300	10/06/05	10/10/05	051007S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	103	123	75-125	17	0-20	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

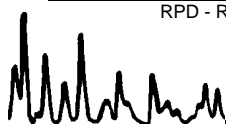
Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: CCR 66261.126
Method: EPA 6010B

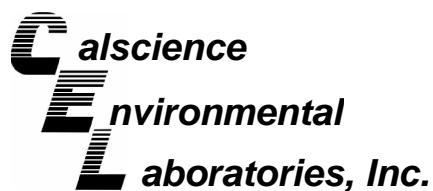
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0079-9	Solid	ICP 3300	10/07/05	10/11/05	051010S05

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	88	87	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

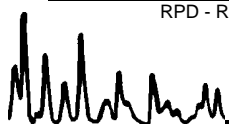
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Work Order No: 05-09-0996
Preparation: EPA 3550B
Method: TPH - Carbon Range

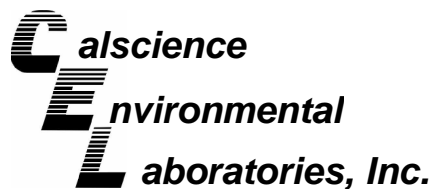
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-0703-17	Solid	GC 15	09/23/05	09/25/05	050923S10

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	81	86	71-125	5	0-12	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

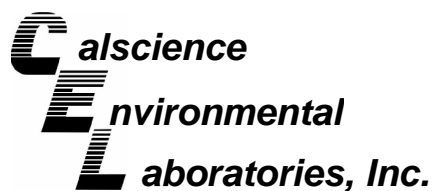
Date Received: 09/16/05
Work Order No: 05-09-0996
Preparation: EPA 3545
Method: EPA 8310

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1326-1	Solid	HPLC 5	09/26/05	09/27/05	050926S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	71	86	40-160	20	0-20	
Benzo (k) Fluoranthene	73	86	40-160	16	0-20	
Benzo (a) Pyrene	74	92	40-160	22	0-20	4
Dibenz (a,h) Anthracene	61	89	40-160	37	0-20	4
Benzo (g,h,i) Perylene	61	87	40-160	35	0-20	4
Indeno (1,2,3-c,d) Pyrene	61	75	40-160	20	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

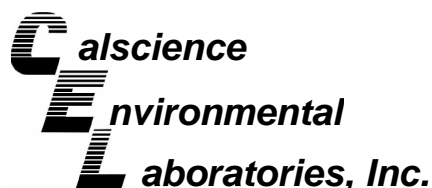
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Work Order No: 05-09-0996
Preparation: EPA 3545
Method: EPA 8082

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1334-16	Solid	GC 10	09/26/05	09/27/05	050926S11

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	98	83	50-135	17	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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San Diego, CA 92127-1461

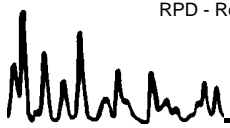
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Work Order No: 05-09-0996
Preparation: EPA 5030B
Method: EPA 8260B

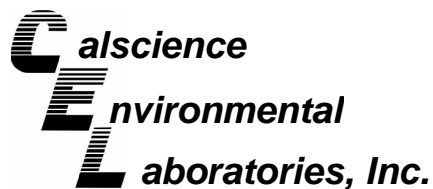
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-0995-8	Solid	GC/MS W	09/24/05	09/24/05	050924S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	86	84	79-115	3	0-13	
Carbon Tetrachloride	87	86	55-139	1	0-15	
Chlorobenzene	75	67	79-115	12	0-17	3
1,2-Dichlorobenzene	58	46	63-123	23	0-23	3
1,1-Dichloroethene	89	87	69-123	2	0-16	
Toluene	80	75	79-115	7	0-15	3
Trichloroethene	85	78	66-144	8	0-14	
Vinyl Chloride	93	93	60-126	0	0-14	
Methyl-t-Butyl Ether (MTBE)	83	87	68-128	5	0-14	
Tert-Butyl Alcohol (TBA)	71	86	44-134	19	0-37	
Diisopropyl Ether (DIPE)	85	87	75-123	2	0-12	
Ethyl-t-Butyl Ether (ETBE)	82	85	75-117	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	90	91	79-115	1	0-12	
Ethanol	71	84	42-138	17	0-28	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

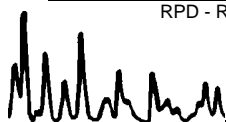
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Work Order No: 05-09-0996

Project: Encinitas I Burnsite / SC0311

Matrix: Solid

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
pH	EPA 9045C	EB-TP5-1.0	09/20/05	6.34	6.35	0	0-25	
pH	EPA 9045C	EB-SP-2A, 2B	09/20/05	7.05	7.02	0	0-25	
pH	EPA 9045C	EB-TP6-8.5	09/23/05	5.94	5.9	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit




Environmental
Laboratories, Inc.
Quality Control - Laboratory Control Sample


GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

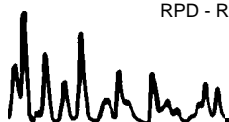
Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-6,828	Solid	ICP 3300	09/19/05	050919-I-02	050919L02

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	25.0	26.7	107	80-120	

RPD - Relative Percent Difference , CL - Control Limit





Environmental Quality Control - Laboratory Control Sample

Laboratories, Inc.



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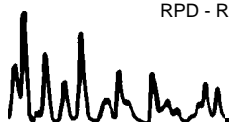
Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-6,824	Solid	ICP 3300	09/19/05	050919-I-13	050919L13

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	25.0	26.9	107	80-120	

RPD - Relative Percent Difference , CL - Control Limit





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 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: N/A
 Work Order No: 05-09-0996
 Preparation: EPA 3050B
 Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-6,842	Solid	ICP 3300	09/23/05	050923-I-01	050923L01A

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	25.0	26.8	107	80-120	

RPD - Relative Percent Difference , CL - Control Limit


Environmental
Laboratories, Inc.
Quality Control - Laboratory Control Sample


GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 1311
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-05-001-2,875	Solid	ICP 3300	10/10/05	051007-I-01	051007L01

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	5.00	5.06	101	80-120	

RPD - Relative Percent Difference , CL - Control Limit



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 San Diego, CA 92127-1461

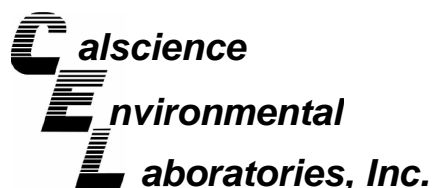
Date Received: N/A
 Work Order No: 05-09-0996
 Preparation: CCR 66261.126
 Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-05-006-2,897	Solid	ICP 3300	10/11/05	051010-I-05	051010L5

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	5.00	4.98	100	80-120	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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San Diego, CA 92127-1461

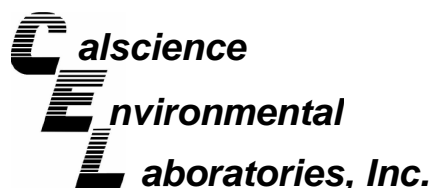
Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 3550B
Method: TPH - Carbon Range

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-002-4,849	Solid	GC 15	09/23/05	09/25/05	050923B10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	103	102	71-119	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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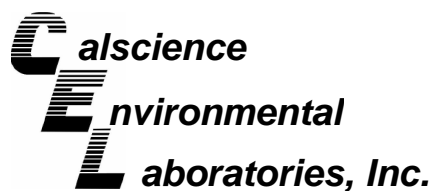
Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 3545
Method: EPA 8310

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-002-577	Solid	HPLC 5	09/26/05	09/27/05	050926L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	119	101	40-160	17	0-20	
Benzo (k) Fluoranthene	125	106	40-160	16	0-20	
Benzo (a) Pyrene	131	111	40-160	16	0-20	
Dibenz (a,h) Anthracene	122	104	40-160	15	0-20	
Benzo (g,h,i) Perylene	126	109	40-160	14	0-20	
Indeno (1,2,3-c,d) Pyrene	118	98	40-160	19	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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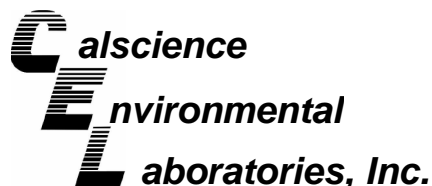
Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 3545
Method: EPA 8082

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-009-715	Solid	GC 10	09/26/05	09/27/05	050926L11

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	99	102	50-135	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0996
Preparation: EPA 5030B
Method: EPA 8260B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-005-11,216	Solid	GC/MS W	09/24/05	09/24/05	050924L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	90	93	84-114	3	0-7	
Carbon Tetrachloride	98	100	66-132	2	0-12	
Chlorobenzene	99	103	87-111	4	0-7	
1,2-Dichlorobenzene	105	108	79-115	2	0-8	
1,1-Dichloroethene	94	97	73-121	3	0-12	
Toluene	91	93	78-114	2	0-7	
Trichloroethene	94	98	84-114	3	0-8	
Vinyl Chloride	99	99	63-129	0	0-15	
Methyl-t-Butyl Ether (MTBE)	85	87	77-125	3	0-11	
Tert-Butyl Alcohol (TBA)	80	89	47-137	11	0-27	
Diisopropyl Ether (DIPE)	89	91	76-130	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	87	88	76-124	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	92	95	82-118	4	0-11	
Ethanol	78	86	59-131	11	0-21	

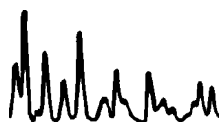
RPD - Relative Percent Difference , CL - Control Limit

Glossary of Terms and Qualifiers



Work Order Number: 05-09-0996

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



Analysis Request and Chain of Custody Record

Project Name Eninitas Burn Site	Project Number SC0311	Required Analyses			
Samplers Names C. Gale, R. Flynn	Project Contact Ed Zielanski	SVOCs by 8270	PCBs by 8082	PAHs by 8010	THF by 8010
Laboratory Name Cal Science	Lab Contact Steve Nawak	Metals by 8270	PCBs by 8082	PAHs by 8010	THF by 8010
Lab Address 7440 Lincoln Way	Lab Phone (714) 895-5494	Bottle Type and Volume/Preservative			
Garden Grove CA	Carrier/Waybill No. Pick-up				

White copy: to accompany samples

Yellow copy: field copy

Sample Name	Date	Time	Sample Type	Number of Containers					Comments	Lab Use Only	Condition of Bottles
1 EB-TPS-1.0	9/15/05	0735	Soil	Hold	X	Hold	Hold	Hold			
2 EB-TPS-4.0		0740			X						
3 EB-TPS-12.5		0752			X						
4 EB-TP6-1.0		0815			X						
5 EB-TP6-6.0		0825			X						
6 EB-TP6-8.5		0830			X						
7 EB-TP7-1.0		0850			X						
8 EB-TP7-6.5		0900			X						
9 EB-TP7-13.0		0915			X						
10 EB-TP8-1.0		0947			X						
11 EB-TP8-6.0		0952			X						
12 EB-TP8-19.0		1030			X						

Turn-around Time:

☐ Normal ☐ Rush:

1. Relinquished by Rebecca J. L...	Date 9/16/05	1. Received by CEL	Date 9/16/05
(Signature/Affiliation)	Time 1225	(Signature/Affiliation)	Time 1225
2. Relinquished by Rebecca Flynn GeoSynTec	Date	2. Received by	Date
(Signature/Affiliation)	Time	(Signature/Affiliation)	Time
3. Relinquished by Rebecca Flynn GeoSynTec	Date 9/16/05	3. Received by CEL	Date 9/16/05
(Signature/Affiliation)	Time 1635	(Signature/Affiliation)	Time 1625

Special Instructions: *Hold all samples for further analysis for VOCs, PCBs, PAHs, TPH, Dioxins
**Run [Bin-5A, -3B], [Bin-4A, -4B], [SP-1A, -1B], and [SP-2A, -2B] as composite

Analysis Request and Chain of Custody Record

Continued from Document Number:

1407

Project Name

Encinitas 1

Bum Sit

Project Number

SC0311

SC0302 9/15/05

Required Analyses

VOCs by 8260B*	Metals Pb	SVOCs by 8270	PH	PCBs by 8082*	PAHs by 8310*	T Hly 8015*	Dioxins 8290*	Furans by 8290
----------------	-----------	---------------	----	---------------	---------------	-------------	---------------	----------------

Bottle Type and Volume/Preservative

--	--	--	--	--	--	--	--	--

Number of Containers

--	--	--	--	--	--	--	--	--

Sample Type

Soil

Date

11/17

Time

1119

Sample Name

EB-TP9-1.0

EB-TP9-3.0

EB-BIN-3A**

EB-BIN-3B**

EB-BIN-4A**

EB-BIN-4B**

EB-SP-1A**

EB-SP-1B**

EB-SP-2A**

EB-SP-2B**

Lab Use Only

Condition of Bottles

Comments

White copy: to accompany samples

Yellow copy: field copy

Page 2 of 2

Stephen Nowak

From: CGale@GeoSyntec.com
Sent: Friday, September 23, 2005 4:13 PM
To: Stephen Nowak
Subject: RE: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

Steve,
 Please run the following for VOCs by 8260, PCBs by 8082, TPH by 8015,
 and PAHs by 8310:

From Calscience work order # 05-09-0703
 EB-B5-5.5
 EB-B6-7.0
 EB-B7-5.0
 EB-B8-15.0

From Calscience work order # 05-09-0995
 EB-TP3-6.0

From Calscience work order # 05-09-0996
 EB-TP6-6.0
 EB-TP5-4.0

Also please run the following for Dioxins and furans by 8290:

From Calscience work order # 05-09-0703
 EB-B6-7.0
 EB-B8-15.0
 EB-HA2-0.5

From Calscience work order # 05-09-0996
 EB-TP6-1.0

Thanks,

Chris Gale
 GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127
 Office: 858-674-6559
 Mobile: 858-229-4322
 Fax: 858-674-6586
 www.geosyntec.com

-----Original Message-----

From: Stephen Nowak [mailto:SNowak@calscience.com]
 Sent: Friday, September 23, 2005 3:17 PM
 To: Christopher Gale
 Subject: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

<<05090996.xls>> <<05-09-0996.pdf>>

Chris - The sample I don't have data for yet is EB-TP6-8.5.
 I'm trying to get it done today.

Stephen Nowak

From: CGale@GeoSyntec.com
Sent: Wednesday, October 05, 2005 12:37 PM
To: Stephen Nowak
Subject: Encinitas Burnsite

Hi Steve,
Can you please run the following samples for STLC and TCLP Lead:

From work order 05-09-0995:
EB-BIN-1A,-1B

From work order 05-09-0996:
EB-BIN-4A,-4B

Thanks again,
Chris Gale

GeoSyntec Consultants

11305 Rancho Bernardo Road, Suite 101

San Diego, CA 92127

Office: 858-674-6559

Mobile: 858-229-4322

Fax: 858-674-6586

www.geosyntec.com



WORK ORDER #:

05 - 09 - 09996

Cooler 1 of 1**SAMPLE RECEIPT FORM**

CLIENT:

Boosyntec

DATE:

9/16/15**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**☐ Chilled, cooler with temperature blank provided.☐ Chilled, cooler without temperature blank.☒ Chilled and placed in cooler with wet ice.☐ Ambient and placed in cooler with wet ice.☐ Ambient temperature.3.4 °C Temperature blank.**LABORATORY (Other than Calscience Courier):**☐ °C Temperature blank.☐ °C IR thermometer.☐ Ambient temperature.

Initial:

CUSTODY SEAL INTACT:

Sample(s): _____

Cooler: _____

No (Not Intact) : _____

Not Applicable (N/A): _____

Initial:

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial:

COMMENTS:



October 14, 2005

Alta Project I.D.: 26744

Mr. Stephen J. Nowak
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Mr. Nowak,

Enclosed are the results for the one soil sample received at Alta Analytical Laboratory on September 27, 2005 under your Project Name "05-09-0996". This sample was extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier
Director of HRMS Services



Alta Analytical Laboratory, a laboratory, is accredited in accordance with the requirements set forth by NELAP for those agents who are involved. The accreditation is for the use of the laboratory in the analysis of HPLC.



**Section I: Sample Inventory Report****Date Received: 9/27/2005****Alta Lab. ID****Client Sample ID**

26744-001

EB-TP6-1.0



SECTION II

Method Blank				EPA Method 8290			
Matrix:	Soil	QC Batch No.:	7301	Lab Sample:	0-MB001	Date Analyzed DB-5:	10-Oct-05
Sample Size:	10 g	Date Extracted:	7-Oct-05	Date Analyzed DB-225:	NA		
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0906			IS 13C-2,3,7,8-TCDD	85.6	40 - 135
1,2,3,7,8-PeCDD	ND	0.147			13C-1,2,3,7,8-PeCDD	83.7	40 - 135
1,2,3,4,7,8-HxCDD	ND	0.251			13C-1,2,3,4,7,8-HxCDD	93.7	40 - 135
1,2,3,6,7,8-HxCDD	ND	0.237			13C-1,2,3,6,7,8-HxCDD	95.9	40 - 135
1,2,3,7,8,9-HxCDD	ND	0.230			13C-1,2,3,4,6,7,8-HpCDD	77.6	40 - 135
1,2,3,4,6,7,8-HpCDD	ND	0.292			13C-OCDD	45.8	40 - 135
OCDD	ND	0.419			13C-2,3,7,8-TCDF	83.9	40 - 135
2,3,7,8-TCDF	ND	0.0930			13C-1,2,3,7,8-PeCDF	80.0	40 - 135
1,2,3,7,8-PeCDF	ND	0.145			13C-2,3,4,7,8-PeCDF	81.7	40 - 135
2,3,4,7,8-PeCDF	ND	0.122			13C-1,2,3,4,7,8-HxCDF	96.9	40 - 135
1,2,3,4,7,8-HxCDF	ND	0.0802			13C-1,2,3,6,7,8-HxCDF	101	40 - 135
1,2,3,6,7,8-HxCDF	ND	0.0739			13C-2,3,4,6,7,8-HxCDF	98.4	40 - 135
2,3,4,6,7,8-HxCDF	ND	0.0851			13C-1,2,3,7,8,9-HxCDF	91.7	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.128			13C-1,2,3,4,6,7,8-HpCDF	79.9	40 - 135
1,2,3,4,6,7,8-HpCDF	ND	0.144			13C-1,2,3,4,7,8,9-HpCDF	81.6	40 - 135
1,2,3,4,7,8,9-HpCDF	ND	0.154			13C-OCDF	59.8	40 - 135
OCDF	ND	0.212			CRS 37Cl-2,3,7,8-TCDD	89.4	40 - 135
Totals					Toxic Equivalent Quotient (TEQ) Data ^e		
Total TCDD	ND	0.0906			TEQ (Min):	0	
Total PeCDD	ND	0.147			a. Sample specific estimated detection limit.		
Total HxCDD	ND	0.239			b. Estimated maximum possible concentration.		
Total HpCDD	ND	0.292			c. Method detection limit.		
Total TCDF	ND	0.0930			d. Lower control limit - upper control limit.		
Total PeCDF	ND	0.133			e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).		
Total HxCDF	ND	0.0891					
Total HpCDF	ND	0.148					

Analyst: JMH

Approved By:

Martha M. Maier

14-Oct-2005 10:04

EPA Method 8290					
OPR Results					
Matrix:	Soil	QC Batch No.:	7301	Lab Sample:	0-OPR001
Sample Size:	10 g	Date Extracted:	7-Oct-05	Date Analyzed DB-5:	10-Oct-05
				Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R LCL-UCL
2,3,7,8-TCDD	10.0	10.9	7 - 13	<u>IS</u> 13C-2,3,7,8-TCDD	74.5 40 - 135
1,2,3,7,8-PeCDD	50.0	52.0	35 - 65	13C-1,2,3,7,8-PeCDD	79.6 40 - 135
1,2,3,4,7,8-HxCDD	50.0	52.2	35 - 65	13C-1,2,3,4,7,8-HxCDD	90.5 40 - 135
1,2,3,6,7,8-HxCDD	50.0	50.7	35 - 65	13C-1,2,3,6,7,8-HxCDD	88.3 40 - 135
1,2,3,7,8,9-HxCDD	50.0	50.0	35 - 65	13C-1,2,3,4,6,7,8-HpCDD	78.8 40 - 135
1,2,3,4,6,7,8-HpCDD	50.0	50.1	35 - 65	13C-OCDD	49.9 40 - 135
OCDD	100	99.1	70 - 130	13C-2,3,7,8-TCDF	73.1 40 - 135
2,3,7,8-TCDF	10.0	10.9	7 - 13	13C-1,2,3,7,8-PeCDF	75.2 40 - 135
1,2,3,7,8-PeCDF	50.0	51.6	35 - 65	13C-2,3,4,7,8-PeCDF	75.1 40 - 135
2,3,4,7,8-PeCDF	50.0	52.4	35 - 65	13C-1,2,3,4,7,8-HxCDF	90.4 40 - 135
1,2,3,4,7,8-HxCDF	50.0	50.5	35 - 65	13C-1,2,3,6,7,8-HxCDF	92.1 40 - 135
1,2,3,6,7,8-HxCDF	50.0	52.0	35 - 65	13C-2,3,4,6,7,8-HxCDF	92.7 40 - 135
2,3,4,6,7,8-HxCDF	50.0	51.2	35 - 65	13C-1,2,3,7,8,9-HxCDF	88.6 40 - 135
1,2,3,7,8,9-HxCDF	50.0	50.7	35 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.5 40 - 135
1,2,3,4,6,7,8-HpCDF	50.0	50.2	35 - 65	13C-1,2,3,4,7,8,9-HpCDF	80.8 40 - 135
1,2,3,4,7,8,9-HpCDF	50.0	49.9	35 - 65	13C-OCDF	61.7 40 - 135
OCDF	100	99.9	70 - 130	<u>CRS</u> 37Cl-2,3,7,8-TCDD	76.2 40 - 135

Analyst: JMH

Approved By: Martha M. Maier

14-Oct-2005 10:04



Sample ID: EB-TP6-1.0				EPA Method 8290			
Client Data		Sample Data		Laboratory Data			
Name:	Calscience Environmental Laboratories	Matrix:	Soil	Lab Sample:	26744-001	Date Received:	27-Sep-05
Project:	05-09-0996	Sample Size:	11.8 g	QC Batch No.:	7301	Date Extracted:	7-Oct-05
Date Collected:	15-Sep-05	%Solids:	83.3	Date Analyzed DB-5:	13-Oct-05	Dates Analyzed DB-225:	11-Oct-05
Time Collected:	0845						
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Labeled Standard	%R	LCL-UCL ^d	Qualifiers
2,3,7,8-TCDD	0.459			IS 13C-2,3,7,8-TCDD	82.7	40 - 135	
1,2,3,7,8-PeCDD	0.810			13C-1,2,3,7,8-PeCDD	95.8	40 - 135	
1,2,3,4,7,8-HxCDD	0.971			13C-1,2,3,4,7,8-HxCDD	99.2	40 - 135	
1,2,3,6,7,8-HxCDD	2.41			13C-1,2,3,6,7,8-HxCDD	93.8	40 - 135	
1,2,3,7,8,9-HxCDD	1.98			13C-1,2,3,4,6,7,8-HpCDD	87.3	40 - 135	
1,2,3,4,6,7,8-HpCDD	23.8			13C-OCDD	49.5	40 - 135	
OCDD	143			13C-2,3,7,8-TCDF	78.3	40 - 135	
2,3,7,8-TCDF	3.42			13C-1,2,3,7,8-PeCDF	87.3	40 - 135	
1,2,3,7,8-PeCDF	2.86			13C-2,3,4,7,8-PeCDF	89.1	40 - 135	
2,3,4,7,8-PeCDF	5.34			13C-1,2,3,4,7,8-HxCDF	100	40 - 135	
1,2,3,4,7,8-HxCDF	3.87			13C-1,2,3,6,7,8-HxCDF	105	40 - 135	
1,2,3,6,7,8-HxCDF	3.41			13C-2,3,4,6,7,8-HxCDF	99.3	40 - 135	
2,3,4,6,7,8-HxCDF	4.74			13C-1,2,3,7,8,9-HxCDF	92.7	40 - 135	
1,2,3,7,8,9-HxCDF	1.05			13C-1,2,3,4,6,7,8-HpCDF	87.2	40 - 135	
1,2,3,4,6,7,8-HpCDF	13.3			13C-1,2,3,4,7,8,9-HpCDF	87.0	40 - 135	
1,2,3,4,7,8,9-HpCDF	0.892			13C-OCDF	60.1	40 - 135	
OCDF	6.34			CRS 37Cl-2,3,7,8-TCDD	88.6	40 - 135	
Totals		Toxic Equivalent Quotient (TEQ) Data ^e					
Total TCDD	36.7	TEQ (Min): 6.39					
Total PeCDD	29.6						
Total HxCDD	39.8						
Total HpCDD	44.9						
Total TCDF	84.0	84.4					
Total PeCDF	58.0						
Total HxCDF	40.3						
Total HpCDF	20.6						
		a. Sample specific estimated detection limit.					
		b. Estimated maximum possible concentration.					
		c. Method detection limit.					
		d. Lower control limit - upper control limit.					
		e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).					

Analyst: JMH

Approved By:

Martha M. Maier

14-Oct-2005 10:04



APPENDIX



DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.



CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

STANDARD OPERATING PROCEDURE

Attachment 10.B.1

SAMPLE LOG-IN CHECKLIST

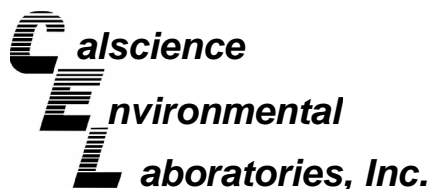
ALTA Project No.: 26744

1. Date Samples Arrived: <u>9/27/05</u> <u>1200</u>	Initials: <u>YLB</u>	Location: <u>WR-2</u>
2. Time / Date logged in: <u>1439</u> <u>9/27/05</u>	Initials: <u>YLB</u>	Location: <u>WR-2</u>
3. Samples Arrived By: (circle) <u>FedEx</u> UPS World Courier Other:		
4. Shipping Preservation: (circle) <u>Ice</u> / Blue Ice / Dry Ice / None Temp °C <u>2.5°C</u>		
5. Shipping Container(s) Intact? If not, describe condition in comment section.	YES	NO
6. Shipping Container(s) Custody Seals Present?		NO
Intact? If not intact, describe condition in comment section.		NA
7. Shipping Documentation Present? (circle) Shipping Label <u>Airbill</u>	YES	NO
Tracking Number <u>8535 04315 315</u>		NA
8. Sample Custody Seal(s) Present? No. of Seals _____ or Seal No. _____		NO
Intact? If not intact, describe condition in comment section.		NA
9. Sample Container Intact? If no, indicate sample condition in comment section.	YES	NO
10. Chain of Custody (COC) or other Sample Documentation Present?	YES	NO
11. COC/Documentation Acceptable? If no, complete COC Anomaly Form.	YES	NO
12. Shipping Container (circle): ALTA <u>Client</u> Retain or <u>Return</u> or Disposed		
13. Container(s) and/or Bottle(s) Requested?		NO
14. Drinking Water Sample? (HRMS Only) If yes, Acceptable Preservation? Y or N		NO
Preservation Info From? (circle) COC or Sample Container or None Noted		NA

Comments:

ALTA Analytical Laboratory
El Dorado Hills, CA 95762

SOP# CH10B_R18, Page 6 of 12



October 17, 2005

Ed Zielanski
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Subject: **Calscience Work Order No.: 05-09-0703**
Client Reference: **Encinitas I Burnsite / SC0311**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/13/2005 and analyzed in accordance with the attached chain-of-custody.

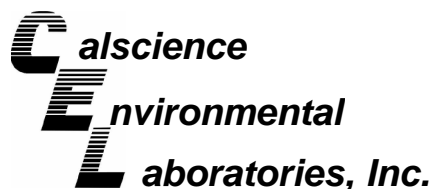
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 1 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B1-0.5	05-09-0703-1	09/12/05	Solid	09/14/05	09/15/05	050914L08

Parameter	Result	RL	DF	Qual	Units
Lead	32.0	0.5	1		mg/kg

EB-B1-5.5	05-09-0703-2	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	141	0.500	1		mg/kg

EB-B1-6.0	05-09-0703-3	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	8.37	0.5	1		mg/kg

EB-B2-0.5	05-09-0703-4	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	29.7	0.5	1		mg/kg

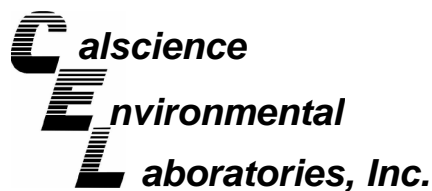
EB-B2-6.0	05-09-0703-5	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	3.33	0.5	1		mg/kg

EB-B3-0.5	05-09-0703-6	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	45.5	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 2 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B3-2.0	05-09-0703-7	09/12/05	Solid	09/14/05	09/15/05	050914L08

Parameter	Result	RL	DF	Qual	Units
Lead	15.5	0.5	1		mg/kg

EB-B3-5.0	05-09-0703-8	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	5.51	0.5	1		mg/kg

EB-HA1-0.5	05-09-0703-9	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	140	0.500	1		mg/kg

EB-HA2-0.5	05-09-0703-10	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	28.2	0.5	1		mg/kg

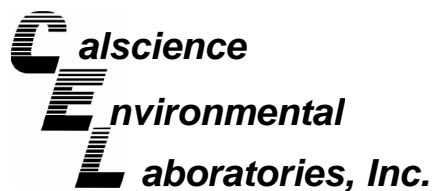
EB-B4-2.5	05-09-0703-11	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	8.97	0.5	1		mg/kg

EB-B4-0.5	05-09-0703-12	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	6.21	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 3 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B4-4.0	05-09-0703-13	09/12/05	Solid	09/14/05	09/15/05	050914L08

Parameter	Result	RL	DF	Qual	Units
Lead	7.79	0.5	1		mg/kg

EB-HA3-0.5	05-09-0703-14	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	6.51	0.5	1		mg/kg

EB-B5-1.5	05-09-0703-15	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	1.65	0.5	1		mg/kg

EB-HA4-0.5	05-09-0703-16	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	45.1	0.5	1		mg/kg

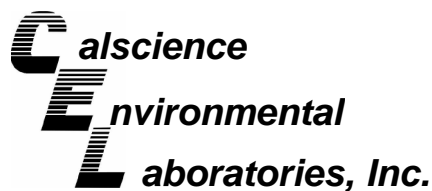
EB-B5-5.5	05-09-0703-17	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	1250	5	10		mg/kg

EB-B5-9.0	05-09-0703-18	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	7.30	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-HA5-0.5	05-09-0703-19	09/12/05	Solid	09/14/05	09/15/05	050914L08

Parameter	Result	RL	DF	Qual	Units
Lead	5.93	0.5	1		mg/kg

EB-B6-2.0	05-09-0703-20	09/12/05	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	63.8	0.5	1		mg/kg

EB-B6-7.0	05-09-0703-21	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	1890	5	10		mg/kg

EB-B6-9.0	05-09-0703-22	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	6.83	0.5	1		mg/kg

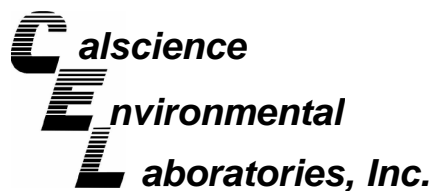
EB-HA6-0.5	05-09-0703-23	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	122	0.500	1		mg/kg

EB-B7-3.0	05-09-0703-24	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	26.5	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 5 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B7-5.0	05-09-0703-25	09/12/05	Solid	09/14/05	09/15/05	050914L09

Parameter	Result	RL	DF	Qual	Units
Lead	455	0.500	1		mg/kg

EB-B7-12.0	05-09-0703-26	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	7.84	0.5	1		mg/kg

EB-B8-4.0	05-09-0703-27	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	15.6	0.5	1		mg/kg

EB-B8-15.0	05-09-0703-28	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	1640	5	10		mg/kg

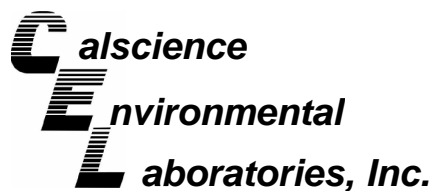
EB-HA12-0.5	05-09-0703-29	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	10.6	0.5	1		mg/kg

EB-HA15-0.5	05-09-0703-30	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	111	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 6 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B9-2.5	05-09-0703-31	09/12/05	Solid	09/14/05	09/15/05	050914L09

Parameter	Result	RL	DF	Qual	Units
Lead	171	0.500	1		mg/kg

EB-B9-5.0	05-09-0703-32	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	63.1	0.5	1		mg/kg

EB-B9-18.0	05-09-0703-33	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	8.48	0.5	1		mg/kg

EB-HA17-0.5	05-09-0703-34	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	131	0.500	1		mg/kg

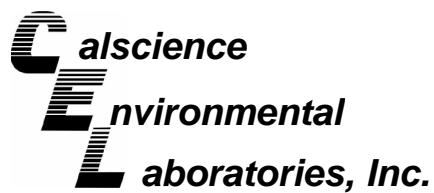
EB-B10-2.5	05-09-0703-35	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	16.4	0.5	1		mg/kg

EB-B10-10.0	05-09-0703-36	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	170	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 7 of 7

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B10-20.0	05-09-0703-37	09/12/05	Solid	09/14/05	09/15/05	050914L09

Parameter	Result	RL	DF	Qual	Units
Lead	77.6	0.5	1		mg/kg

EB-B8-18.0	05-09-0703-38	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	5.48	0.5	1		mg/kg

EB-HA20-0.5	05-09-0703-39	09/12/05	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	64.7	0.5	1		mg/kg

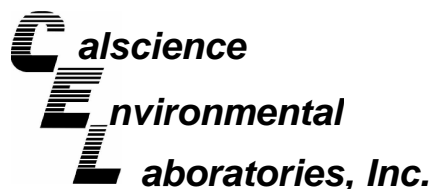
Method Blank	097-01-002-6,815	N/A	Solid	09/14/05	09/15/05	050914L08
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

Method Blank	097-01-002-6,816	N/A	Solid	09/14/05	09/15/05	050914L09
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B5-5.5	05-09-0703-17	09/12/05	Solid	09/23/05	09/25/05	050923B10

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	4.6		1	
C8	ND		1		C23-C24	4.5		1	
C9-C10	ND		1		C25-C28	32		1	
C11-C12	ND		1		C29-C32	ND		1	
C13-C14	0.75		1		C33-C36	14		1	
C15-C16	3.5		1		C37-C40	5.6		1	
C17-C18	1.4		1		C41-C44	9.6		1	
C19-C20	2.8		1		C7-C44 Total	66	5	1	

Surrogates: REC (%) Control Limits Qual
Decachlorobiphenyl 102 62-152

EB-B6-7.0	05-09-0703-21	09/12/05	Solid	09/23/05	09/25/05	050923B10
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	1.8		1	
C8	ND		1		C23-C24	3.1		1	
C9-C10	ND		1		C25-C28	23		1	
C11-C12	ND		1		C29-C32	ND		1	
C13-C14	0.82		1		C33-C36	5.6		1	
C15-C16	1.7		1		C37-C40	3.3		1	
C17-C18	1.8		1		C41-C44	4.5		1	
C19-C20	2.8		1		C7-C44 Total	36	5	1	

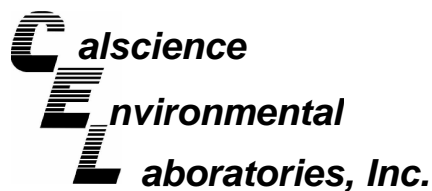
Surrogates: REC (%) Control Limits Qual
Decachlorobiphenyl 99 62-152

EB-B7-5.0	05-09-0703-25	09/12/05	Solid	09/23/05	09/25/05	050923B10
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	4.2		1	
C8	ND		1		C23-C24	3.5		1	
C9-C10	ND		1		C25-C28	28		1	
C11-C12	0.49		1		C29-C32	ND		1	
C13-C14	3.4		1		C33-C36	3.3		1	
C15-C16	4.3		1		C37-C40	7.4		1	
C17-C18	2.7		1		C41-C44	5.5		1	
C19-C20	2.1		1		C7-C44 Total	54	5	1	

Surrogates: REC (%) Control Limits Qual
Decachlorobiphenyl 90 62-152

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B8-15.0	05-09-0703-28	09/12/05	Solid	09/23/05	09/25/05	050923B10

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	4.1		1	
C8	ND		1		C23-C24	6.5		1	
C9-C10	ND		1		C25-C28	28		1	
C11-C12	ND		1		C29-C32	ND		1	
C13-C14	0.97		1		C33-C36	11		1	
C15-C16	3.2		1		C37-C40	3.6		1	
C17-C18	2.0		1		C41-C44	7.0		1	
C19-C20	2.8		1		C7-C44 Total	58	5	1	

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	98	62-152	

Method Blank	098-03-002-4,849	N/A	Solid	09/23/05	09/24/05	050923B10
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
TPH as Diesel	ND	5.0	1	
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
Decachlorobiphenyl	105	62-152		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8310
Units: ug/kg

Project: Encinitas I Burnsite / SC0311

Page 1 of 2

Client Sample Number	Lab Sample Number				Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID	
EB-B5-5.5	05-09-0703-17				09/12/05	Solid	09/26/05	09/28/05	050926L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual	
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1		
Acenaphthylene	ND	50	1		Chrysene	ND	50	1		
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1		
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1		
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1		
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1		
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1		
Pyrene	58	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1		
Surrogates:	REC (%)	Control Limits		Qual						
Decafluorobiphenyl	132	40-160								
EB-B6-7.0	05-09-0703-21				09/12/05	Solid	09/26/05	09/28/05	050926L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual	
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1		
Acenaphthylene	ND	50	1		Chrysene	ND	50	1		
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1		
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1		
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1		
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1		
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1		
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1		
Surrogates:	REC (%)	Control Limits		Qual						
Decafluorobiphenyl	86	40-160								
EB-B7-5.0	05-09-0703-25				09/12/05	Solid	09/26/05	09/28/05	050926L01	
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual	
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1		
Acenaphthylene	ND	50	1		Chrysene	ND	50	1		
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1		
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1		
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1		
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1		
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1		
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1		
Surrogates:	REC (%)	Control Limits		Qual						
Decafluorobiphenyl	116	40-160								

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/13/05
 Work Order No: 05-09-0703
 Preparation: EPA 3545
 Method: EPA 8310
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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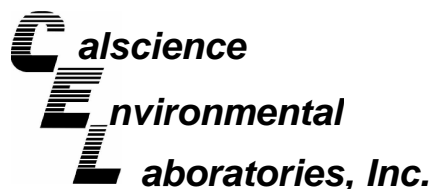
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B8-15.0	05-09-0703-28	09/12/05	Solid	09/26/05	09/28/05	050926L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	1800	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	116	40-160							

Method Blank	099-07-002-577	N/A	Solid	09/26/05	09/27/05	050926L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	76	40-160							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number				Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B5-5.5	05-09-0703-17				09/12/05	Solid	09/26/05	09/29/05	050926L11
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	71	50-130			2,4,5,6-Tetrachloro-m-Xylene	75	50-130		
EB-B6-7.0	05-09-0703-21				09/12/05	Solid	09/26/05	09/29/05	050926L11
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	66	50-130			2,4,5,6-Tetrachloro-m-Xylene	67	50-130		
EB-B7-5.0	05-09-0703-25				09/12/05	Solid	09/26/05	09/29/05	050926L11
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	69	50-130			2,4,5,6-Tetrachloro-m-Xylene	69	50-130		
EB-B8-15.0	05-09-0703-28				09/12/05	Solid	09/26/05	09/29/05	050926L11
Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	67	50-130			2,4,5,6-Tetrachloro-m-Xylene	68	50-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/13/05
 Work Order No: 05-09-0703
 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	099-07-009-715	N/A	Solid	09/26/05	09/27/05	050926L11

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	82	50-130			2,4,5,6-Tetrachloro-m-Xylene	80	50-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/13/05
 Work Order No: 05-09-0703
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B5-5.5	05-09-0703-17	09/12/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	117	73-139			1,2-Dichloroethane-d4	120	73-145		
Toluene-d8	99	90-108			1,4-Bromofluorobenzene	83	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/13/05
 Work Order No: 05-09-0703
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B6-7.0	05-09-0703-21	09/12/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	101	73-139			1,2-Dichloroethane-d4	104	73-145		
Toluene-d8	100	90-108			1,4-Bromofluorobenzene	82	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/kg

Project: Encinitas I Burnsite / SC0311

Page 3 of 5

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B7-5.0	05-09-0703-25	09/12/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	118	73-139			1,2-Dichloroethane-d4	122	73-145		
Toluene-d8	100	90-108			1,4-Bromofluorobenzene	82	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 5030B
Method: EPA 8260B
Units: ug/kg

Project: Encinitas I Burnsite / SC0311

Page 4 of 5

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-B8-15.0	05-09-0703-28	09/12/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	119	73-139			1,2-Dichloroethane-d4	122	73-145		
Toluene-d8	100	90-108			1,4-Bromofluorobenzene	82	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/13/05
 Work Order No: 05-09-0703
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

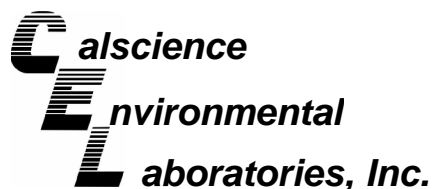
Project: Encinitas I Burnsite / SC0311

Page 5 of 5

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	099-10-005-11,216	N/A	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
Dibromofluoromethane	105	73-139			1,2-Dichloroethane-d4	109	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	86	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

Page 1 of 8

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B1-0.5	05-09-0703-1	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.79	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B1-5.5	05-09-0703-2	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.39	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B1-6.0	05-09-0703-3	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	8.12	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

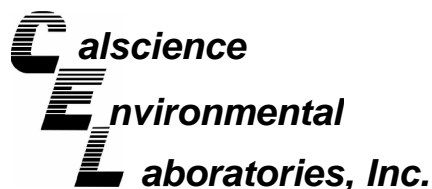
EB-B2-0.5	05-09-0703-4	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.44	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B2-6.0	05-09-0703-5	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.45	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B3-0.5	05-09-0703-6	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.2	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B3-2.0	05-09-0703-7	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	8.25	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B3-5.0	05-09-0703-8	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.72	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

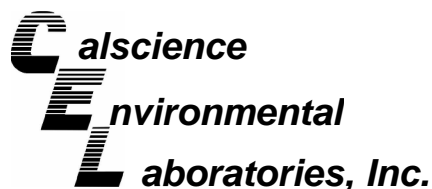
EB-HA1-0.5	05-09-0703-9	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.52	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-HA2-0.5	05-09-0703-10	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.61	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

Page 3 of 8

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B4-2.5	05-09-0703-11	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.76	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B4-0.5	05-09-0703-12	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.28	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B4-4.0	05-09-0703-13	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.32	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

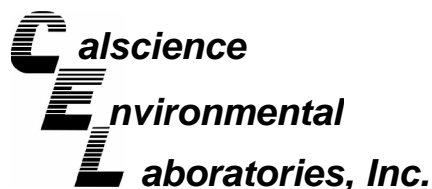
EB-HA3-0.5	05-09-0703-14	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.91	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B5-1.5	05-09-0703-15	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.95	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

Page 4 of 8

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-HA4-0.5	05-09-0703-16	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.76	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B5-5.5	05-09-0703-17	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.85	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B5-9.0	05-09-0703-18	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.36	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

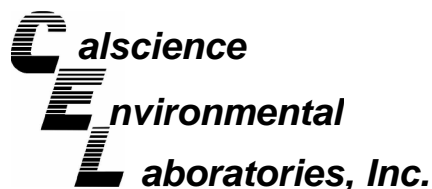
EB-HA5-0.5	05-09-0703-19	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.07	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B6-2.0	05-09-0703-20	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.45	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

Page 5 of 8

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B6-7.0	05-09-0703-21	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.19	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B6-9.0	05-09-0703-22	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.45	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-HA6-0.5	05-09-0703-23	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.77	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

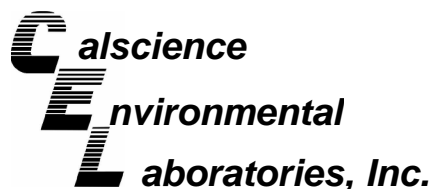
EB-B7-3.0	05-09-0703-24	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.4	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B7-5.0	05-09-0703-25	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.61	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
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San Diego, CA 92127-1461

Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B7-12.0	05-09-0703-26	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	5.18	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B8-4.0	05-09-0703-27	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.17	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B8-15.0	05-09-0703-28	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.05	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

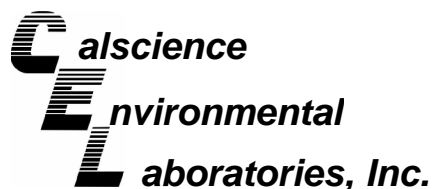
EB-HA12-0.5	05-09-0703-29	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.01	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-HA15-0.5	05-09-0703-30	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.47	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



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Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B9-2.5	05-09-0703-31	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.82	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B9-5.0	05-09-0703-32	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.34	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B9-18.0	05-09-0703-33	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.46	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

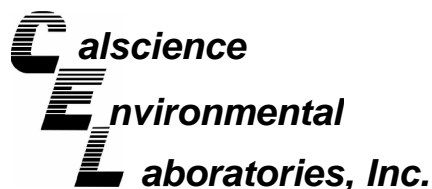
EB-HA17-0.5	05-09-0703-34	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.53	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B10-2.5	05-09-0703-35	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.27	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



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Date Received: 09/13/05
Work Order No: 05-09-0703

Project: Encinitas I Burnsite / SC0311

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Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-B10-10.0	05-09-0703-36	09/12/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.87	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-B10-20.0	05-09-0703-37	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.91	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

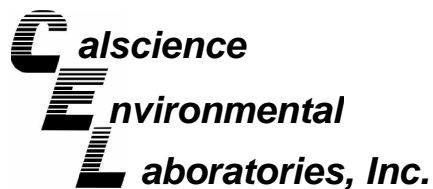
EB-B8-18.0	05-09-0703-38	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.37	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

EB-HA20-0.5	05-09-0703-39	09/12/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.46	0.01	1		pH unit	09/19/05	09/19/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



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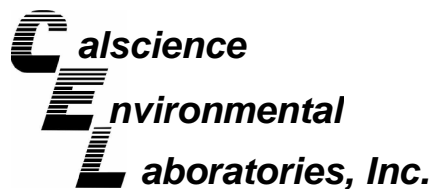
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB-HA2-0.5	Solid	ICP 3300	09/14/05	09/15/05	050914S08

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	144	315	75-125	50	0-20	3,4

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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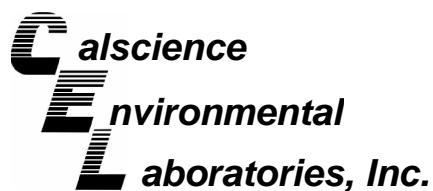
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB-HA20-0.5	Solid	ICP 3300	09/14/05	09/15/05	050914S09

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	107	162	75-125	14	0-20	3

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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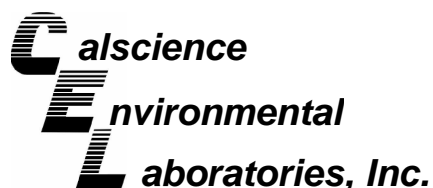
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3550B
Method: TPH - Carbon Range

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB-B5-5.5	Solid	GC 15	09/23/05	09/25/05	050923S10

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	81	86	71-125	5	0-12	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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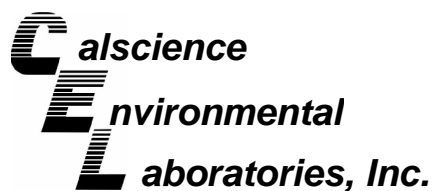
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8310

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1326-1	Solid	HPLC 5	09/26/05	09/27/05	050926S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	71	86	40-160	20	0-20	
Benzo (k) Fluoranthene	73	86	40-160	16	0-20	
Benzo (a) Pyrene	74	92	40-160	22	0-20	4
Dibenz (a,h) Anthracene	61	89	40-160	37	0-20	4
Benzo (g,h,i) Perylene	61	87	40-160	35	0-20	4
Indeno (1,2,3-c,d) Pyrene	61	75	40-160	20	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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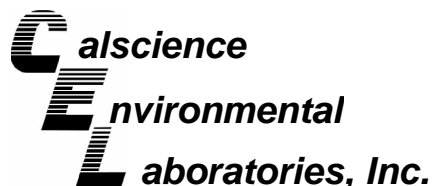
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8082

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1334-16	Solid	GC 10	09/26/05	09/27/05	050926S11

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	98	83	50-135	17	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



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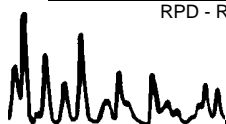
Date Received: 09/13/05
Work Order No: 05-09-0703
Preparation: EPA 5030B
Method: EPA 8260B

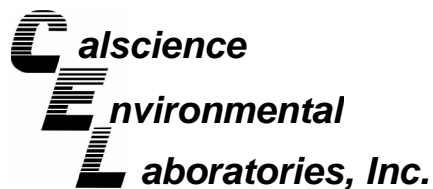
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-0995-8	Solid	GC/MS W	09/24/05	09/24/05	050924S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	86	84	79-115	3	0-13	
Carbon Tetrachloride	87	86	55-139	1	0-15	
Chlorobenzene	75	67	79-115	12	0-17	3
1,2-Dichlorobenzene	58	46	63-123	23	0-23	3
1,1-Dichloroethene	89	87	69-123	2	0-16	
Toluene	80	75	79-115	7	0-15	3
Trichloroethene	85	78	66-144	8	0-14	
Vinyl Chloride	93	93	60-126	0	0-14	
Methyl-t-Butyl Ether (MTBE)	83	87	68-128	5	0-14	
Tert-Butyl Alcohol (TBA)	71	86	44-134	19	0-37	
Diisopropyl Ether (DIPE)	85	87	75-123	2	0-12	
Ethyl-t-Butyl Ether (ETBE)	82	85	75-117	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	90	91	79-115	1	0-12	
Ethanol	71	84	42-138	17	0-28	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Duplicate



GeoSyntec Consultants
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San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0703

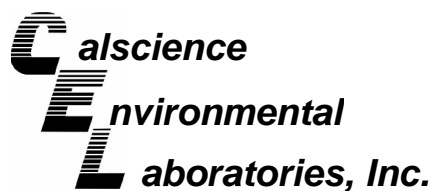
Project: Encinitas I Burnsite / SC0311

Matrix: Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH	EPA 9045C	EB-B2-6.0	09/19/05	4.45	4.45	0	0-25	
pH	EPA 9045C	EB-B9-5.0	09/19/05	7.34	7.48	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

A handwritten signature in black ink, appearing to be 'M. J. ...'.



Quality Control - LCS/LCS Duplicate



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11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0703
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-6,815	Solid	ICP 3300	09/14/05	09/15/05	050914L08

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	103	101	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



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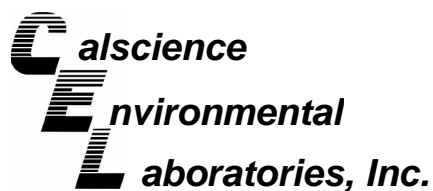
Date Received: N/A
 Work Order No: 05-09-0703
 Preparation: EPA 3050B
 Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-6,816	Solid	ICP 3300	09/15/05	050914-I-09	050914L09

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	25.0	26.3	105	80-120	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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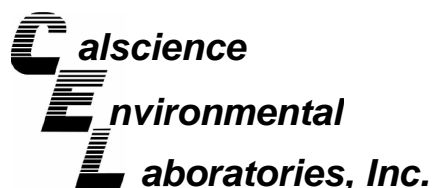
Date Received: N/A
Work Order No: 05-09-0703
Preparation: EPA 3550B
Method: TPH - Carbon Range

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-002-4,849	Solid	GC 15	09/23/05	09/25/05	050923B10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	103	102	71-119	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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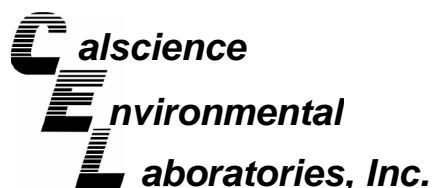
Date Received: N/A
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8310

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-002-577	Solid	HPLC 5	09/26/05	09/27/05	050926L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	119	101	40-160	17	0-20	
Benzo (k) Fluoranthene	125	106	40-160	16	0-20	
Benzo (a) Pyrene	131	111	40-160	16	0-20	
Dibenz (a,h) Anthracene	122	104	40-160	15	0-20	
Benzo (g,h,i) Perylene	126	109	40-160	14	0-20	
Indeno (1,2,3-c,d) Pyrene	118	98	40-160	19	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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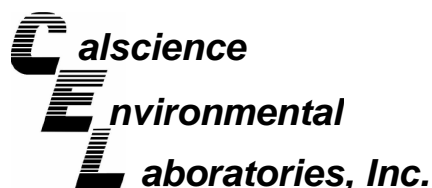
Date Received: N/A
Work Order No: 05-09-0703
Preparation: EPA 3545
Method: EPA 8082

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-009-715	Solid	GC 10	09/26/05	09/27/05	050926L11

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	99	102	50-135	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



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Date Received: N/A
Work Order No: 05-09-0703
Preparation: EPA 5030B
Method: EPA 8260B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-005-11,216	Solid	GC/MS W	09/24/05	09/24/05	050924L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	90	93	84-114	3	0-7	
Carbon Tetrachloride	98	100	66-132	2	0-12	
Chlorobenzene	99	103	87-111	4	0-7	
1,2-Dichlorobenzene	105	108	79-115	2	0-8	
1,1-Dichloroethene	94	97	73-121	3	0-12	
Toluene	91	93	78-114	2	0-7	
Trichloroethene	94	98	84-114	3	0-8	
Vinyl Chloride	99	99	63-129	0	0-15	
Methyl-t-Butyl Ether (MTBE)	85	87	77-125	3	0-11	
Tert-Butyl Alcohol (TBA)	80	89	47-137	11	0-27	
Diisopropyl Ether (DIPE)	89	91	76-130	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	87	88	76-124	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	92	95	82-118	4	0-11	
Ethanol	78	86	59-131	11	0-21	

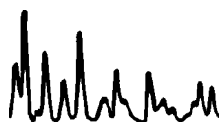
RPD - Relative Percent Difference , CL - Control Limit

Glossary of Terms and Qualifiers



Work Order Number: 05-09-0703

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



Analysis Request and Chain of Custody Record

Project Name		Project Number		Required Analyses										Lab Use Only	
Samplers Names		Project Contact		Project Contact		Project Contact		Project Contact		Project Contact		Project Contact		Project Contact	
Laboratory Name		Lab Contact		Lab Contact		Lab Contact		Lab Contact		Lab Contact		Lab Contact		Lab Contact	
Lab Address		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone	
Lab Address		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone		Lab Phone	
Environ 1		SC0311		SC0311		SC0311		SC0311		SC0311		SC0311		SC0311	
C. Gale		Ed Zieminski		Ed Zieminski		Ed Zieminski		Ed Zieminski		Ed Zieminski		Ed Zieminski		Ed Zieminski	
Cal Science		Steve Narsky		Steve Narsky		Steve Narsky		Steve Narsky		Steve Narsky		Steve Narsky		Steve Narsky	
7440 Lincoln Way		714-855-5494		714-855-5494		714-855-5494		714-855-5494		714-855-5494		714-855-5494		714-855-5494	
Garden Grove, CA 92841		Carrier/Waybill No.		Carrier/Waybill No.		Carrier/Waybill No.		Carrier/Waybill No.		Carrier/Waybill No.		Carrier/Waybill No.		Carrier/Waybill No.	
Sample Name	Date	Time	Sample Type	Number of Containers										Comments	Lab Use Only
EB-B1-0.5	9/12/05	830	Sail	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold	hold
EB-B1-0.5	9/12/05	915													
EB-B1-0.5	9/12/05	920													
EB-B2-0.5	9/12/05	935													
EB-B2-0.5	9/12/05	1030													
EB-B3-0.5	9/12/05	1040													
EB-B3-2.0	9/12/05	1045													
EB-B3-5.0	9/12/05	1045													
EB-HA1-0.5	9/12/05	1115													
EB-HA2-0.5	9/12/05	1120													
EB-B4-2.5	9/12/05	1117													
EB-B4-0.5	9/12/05	1115													
Special Instructions: * Hold all samples for further analyses for VOCs, PCBs, PAHs, TPH, Dioxins/Furans															
1. Relinquished by		Date		Time		1. Received by		Date		Time		Turn-around Time:		Normal <input checked="" type="checkbox"/> Rush: <input type="checkbox"/>	
(Signature/Affiliation)		9/12/05		1140		(Signature/Affiliation)		9/13/05		1140					
2. Relinquished by		Date		Time		2. Received by		Date		Time					
(Signature/Affiliation)		9/13/05		1805		(Signature/Affiliation)		9/13/05		1805					
3. Relinquished by		Date		Time		3. Received by		Date		Time					
(Signature/Affiliation)		9/13/05		1805		(Signature/Affiliation)		9/13/05		1805					

Analysis Request and Chain of Custody Record

Project Name Encinitas I Burns site	Project Number SC0311	Required Analyses						
Samplers Names C. Gale	Project Contact Ed Zielanski	Metals Pb	SVOCs by 8270	PH	PCBs by 8082 *	PAHs by 8310 *	TPH by 8015 *	NOxins & furans *
Laboratory Name Cal Science	Lab Contact Steve NAWAK	Bottle Type and Volume/Preservative						
Lab Address	Lab Phone	Number of Containers						
Carrier/Waybill No.	Sample Type							
	Date	Time						
EB-B4-4.0	9/12/05	1135	Soil	hold	x	hold	hold	hold
EB-HA3-0.5	1	1130			x			
EB-B5-1.5	9/12/05	1159			x			
EB-HA4-0.5	1	1145			x			
EB-B5-5.5		1210			x			
EB-B5-9.0		1212			x			
EB-HA5-0.5		1255			x			
EB-B6-2.0		1232			x			
EB-B6-7.0		1244			x			
EB-B6-9.0		1246			x			
EB-HA6-0.5		1315			x			
EB-B7-3.0		1307			x			

Turn-around Time:

☒ Normal ☐ Rush:

1. Relinquished by (Signature/Affiliation) <i>Chad</i>	Date 9/13/05	1. Received by (Signature/Affiliation) <i>CEL</i>	Date 9/13/05
2. Relinquished by (Signature/Affiliation)	Time 1140	2. Received by (Signature/Affiliation)	Time 1140
3. Relinquished by (Signature/Affiliation) <i>Steve NAWAK</i>	Date 9/13/05	3. Received by (Signature/Affiliation) <i>Steve NAWAK</i>	Date 9/13/05
	Time 1805		Time 1805

Special Instructions: * hold all samples for further analyses for VOCs, PCBs, PAHs, TPA, & Dioxins & furans

Document Number: 1291

Analysis Request and Chain of Custody Record

Project Name Encinitas 1 Bursite	Project Number 50031	Required Analyses						
Samplers Names C. Gale	Project Contact Ed Zielinski	VOCs by 8260 B *	Metals by Pb	SVOCs by 8270	PCBs by 8082 *	PAHs by 8310 *	TDI by 8015 *	Dioxins & furans * by 8290
Laboratory Name Calscience	Lab Contact Steve Novak							
Lab Address GARDEN GROVE, CA	Lab Phone 1-714-895-5494							
	Carrier/Waybill No. 169 pick up							

White copy: to accompany samples

Yellow copy: field copy

Page 3 of 4

Sample Name	Date	Time	Sample Type	Bottle Type and Volume/Preservative										Comments	Lab Use	
															Condition of Bottles	Only
EB-B7-5.0	9/12/05	1311	Soil	hold	X		hold	hold	hold	hold						
EB-B7-12.0		1318			X						X					
EB-B8-4.0		1346			X						X					
EB-B8-15.0		1408			X						X					
EB-HA20.5		1455			X						X					
EB-HA15-0.5		1515			X						X					
EB-B9-2.5		1500			X						X					
EB-B9-5.0		1510			X						X					
EB-B9-18.0		1529			X						X					
EB-HA18-0.5		1516			X						X					
EB-B10-2.5		1551			X						X					
EB-B10-10.0		1557			X						X					

Turn-around Time:

☒ Normal ☐ Rush:

1. Relinquished by (Signature/Affiliation)	Date 9/13/05	1. Received by (Signature/Affiliation)	Date 9/13/05
2. Relinquished by (Signature/Affiliation)	Time 1140	2. Received by (Signature/Affiliation)	Time 1140
3. Relinquished by (Signature/Affiliation)	Date 9/13/05	3. Received by (Signature/Affiliation)	Date 9/13/05
	Time 1505		Time 1505

[illegible]

Special Instructions:

Turn-around Time:

☒ Normal ☐ Rush:

1. Relinquished by  Signature/Affiliation) <i>(S)</i> <i>Y</i> <i>10-1</i>	Date <i>9/13/05</i>	1. Received by  (Signature/Affiliation)
---	---------------------	---

Date 9/13/05
Time 11:15

1. Received by
(Signature/Affiliation)



Date: _____
Time: _____

2. Relinquished by (Signature/Affiliation)	Date Time	2. Received by (Signature/Affiliation)
---	--------------	---

Date _____
Time _____

2. Received by _____
(Signature/Affiliation)

Date _____
Time _____

3. Relinquished by (Signature/Affiliation)	3. Received by (Signature/Affiliation)
	
Date	Date
Time	Time

Date 9/13/5
Time 1:00 PM

3. Received by
(Signature/Affiliation)

Date _____
Time _____

Stephen Nowak

From: CGale@GeoSyntec.com
Sent: Friday, September 23, 2005 4:13 PM
To: Stephen Nowak
Subject: RE: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

Steve,
Please run the following for VOCs by 8260, PCBs by 8082, TPH by 8015,
and PAHs by 8310:

From Calscience work order # 05-09-0703
EB-B5-5.5
EB-B6-7.0
EB-B7-5.0
EB-B8-15.0

From Calscience work order # 05-09-0995
EB-TP3-6.0

From Calscience work order # 05-09-0996
EB-TP6-6.0
EB-TP5-4.0

Also please run the following for Dioxins and furans by 8290:

From Calscience work order # 05-09-0703
EB-B6-7.0
EB-B8-15.0
EB-HA2-0.5

From Calscience work order # 05-09-0996
EB-TP6-1.0

Thanks,

Chris Gale
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127
Office: 858-674-6559
Mobile: 858-229-4322
Fax: 858-674-6586
www.geosyntec.com

-----Original Message-----

From: Stephen Nowak [mailto:SNowak@calscience.com]
Sent: Friday, September 23, 2005 3:17 PM
To: Christopher Gale
Subject: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

<<05090996.xls>> <<05-09-0996.pdf>>

Chris - The sample I don't have data for yet is EB-TP6-8.5.
I'm trying to get it done today.

WORK ORDER #:

05 - 09 - 0703

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: Geosyntec

DATE: 9/13/05

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- ☐ Chilled, cooler with temperature blank provided.
☐ Chilled, cooler without temperature blank.
☒ Chilled and placed in cooler with wet ice.
☐ Ambient and placed in cooler with wet ice.
☐ Ambient temperature.

LABORATORY (Other than Calscience Courier):

- ☐ °C Temperature blank.
☐ °C IR thermometer.
☐ Ambient temperature.

3.5 °C Temperature blank.

Initial: [Signature]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Applicable (N/A): ☒

Initial: [Signature]

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: [Signature]

COMMENTS:

Not received EB-HA 18-0.5, instead received
EB-HA 17-0.5
(T.P) 9/13/05



October 14, 2005

Alta Project I.D.: 26743

Mr. Stephen J. Nowak
Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Dear Mr. Nowak,

Enclosed are the results for the three soil samples received at Alta Analytical Laboratory on September 27, 2005 under your Project Name "05-09-0703". These samples were extracted and analyzed using EPA Method 8290 for tetra-through-octa chlorinated dioxins and furans. A standard turnaround time was provided for this work.

The following report consists of a Sample Inventory (Section I), Analytical Results (Section II) and the Appendix, which contains the chain-of-custody, a list of data qualifiers and abbreviations, Alta's current certifications, and copies of the raw data (if requested).

Alta Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-933-1640 or by email at mmaier@altalab.com. Thank you for choosing Alta as part of your analytical support team.

Sincerely,

Martha M. Maier
HRMS Services Director



**Section I: Sample Inventory Report****Date Received: 9/27/2005**

<u>Alta Lab. ID</u>	<u>Client Sample ID</u>
26743-001	EB-HA2-0.5
26743-002	EB-B6-7.0
26743-003	EB-B8-15.0



SECTION II

Method Blank				EPA Method 8290			
Matrix:	Soil	QC Batch No.:	7301	Lab Sample:	0-MB001	Date Analyzed DB-5:	10-Oct-05
Sample Size:	10 g	Date Extracted:	7-Oct-05	Date Analyzed DB-225:	NA		
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.0906			IS 13C-2,3,7,8-TCDD	85.6	40 - 135
1,2,3,7,8-PeCDD	ND	0.147			13C-1,2,3,7,8-PeCDD	83.7	40 - 135
1,2,3,4,7,8-HxCDD	ND	0.251			13C-1,2,3,4,7,8-HxCDD	93.7	40 - 135
1,2,3,6,7,8-HxCDD	ND	0.237			13C-1,2,3,6,7,8-HxCDD	95.9	40 - 135
1,2,3,7,8,9-HxCDD	ND	0.230			13C-1,2,3,4,6,7,8-HpCDD	77.6	40 - 135
1,2,3,4,6,7,8-HpCDD	ND	0.292			13C-OCDD	45.8	40 - 135
OCDD	ND	0.419			13C-2,3,7,8-TCDF	83.9	40 - 135
2,3,7,8-TCDF	ND	0.0930			13C-1,2,3,7,8-PeCDF	80.0	40 - 135
1,2,3,7,8-PeCDF	ND	0.145			13C-2,3,4,7,8-PeCDF	81.7	40 - 135
2,3,4,7,8-PeCDF	ND	0.122			13C-1,2,3,4,7,8-HxCDF	96.9	40 - 135
1,2,3,4,7,8-HxCDF	ND	0.0802			13C-1,2,3,6,7,8-HxCDF	101	40 - 135
1,2,3,6,7,8-HxCDF	ND	0.0739			13C-2,3,4,6,7,8-HxCDF	98.4	40 - 135
2,3,4,6,7,8-HxCDF	ND	0.0851			13C-1,2,3,7,8,9-HxCDF	91.7	40 - 135
1,2,3,7,8,9-HxCDF	ND	0.128			13C-1,2,3,4,6,7,8-HpCDF	79.9	40 - 135
1,2,3,4,6,7,8-HpCDF	ND	0.144			13C-1,2,3,4,7,8,9-HpCDF	81.6	40 - 135
1,2,3,4,7,8,9-HpCDF	ND	0.154			13C-OCDF	59.8	40 - 135
OCDF	ND	0.212			CRS 37Cl-2,3,7,8-TCDD	89.4	40 - 135
Totals	Toxic Equivalent Quotient (TEQ) Data ^e						
Total TCDD	ND	0.0906			TEQ (Min):	0	
Total PeCDD	ND	0.147			a. Sample specific estimated detection limit.		
Total HxCDD	ND	0.239			b. Estimated maximum possible concentration.		
Total HpCDD	ND	0.292			c. Method detection limit.		
Total TCDF	ND	0.0930			d. Lower control limit - upper control limit.		
Total PeCDF	ND	0.133			e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).		
Total HxCDF	ND	0.0891					
Total HpCDF	ND	0.148					

Analyst: JMH

Approved By:

William J. Luksemburg

14-Oct-2005 10:10

OPR Results					EPA Method 8290		
Matrix:	Soil	QC Batch No.:	7301	Lab Sample:	0-OPR001		
Sample Size:	10 g	Date Extracted:	7-Oct-05	Date Analyzed DB-5:	10-Oct-05	Date Analyzed DB-225:	NA
Analyte	Spike Conc.	Conc. (ng/mL)	OPR Limits	Labeled Standard	%R	LCL-UCL	
2,3,7,8-TCDD	10.0	10.9	7 - 13	IS 13C-2,3,7,8-TCDD	74.5	40 - 135	
1,2,3,7,8-PeCDD	50.0	52.0	35 - 65	13C-1,2,3,7,8-PeCDD	79.6	40 - 135	
1,2,3,4,7,8-HxCDD	50.0	52.2	35 - 65	13C-1,2,3,4,7,8-HxCDD	90.5	40 - 135	
1,2,3,6,7,8-HxCDD	50.0	50.7	35 - 65	13C-1,2,3,6,7,8-HxCDD	88.3	40 - 135	
1,2,3,7,8,9-HxCDD	50.0	50.0	35 - 65	13C-1,2,3,4,6,7,8-HpCDD	78.8	40 - 135	
1,2,3,4,6,7,8-HpCDD	50.0	50.1	35 - 65	13C-OCDD	49.9	40 - 135	
OCDD	100	99.1	70 - 130	13C-2,3,7,8-TCDF	73.1	40 - 135	
2,3,7,8-TCDF	10.0	10.9	7 - 13	13C-1,2,3,7,8-PeCDF	75.2	40 - 135	
1,2,3,7,8-PeCDF	50.0	51.6	35 - 65	13C-2,3,4,7,8-PeCDF	75.1	40 - 135	
2,3,4,7,8-PeCDF	50.0	52.4	35 - 65	13C-1,2,3,4,7,8-HxCDF	90.4	40 - 135	
1,2,3,4,7,8-HxCDF	50.0	50.5	35 - 65	13C-1,2,3,6,7,8-HxCDF	92.1	40 - 135	
1,2,3,6,7,8-HxCDF	50.0	52.0	35 - 65	13C-2,3,4,6,7,8-HxCDF	92.7	40 - 135	
2,3,4,6,7,8-HxCDF	50.0	51.2	35 - 65	13C-1,2,3,7,8,9-HxCDF	88.6	40 - 135	
1,2,3,7,8,9-HxCDF	50.0	50.7	35 - 65	13C-1,2,3,4,6,7,8-HpCDF	76.5	40 - 135	
1,2,3,4,6,7,8-HpCDF	50.0	50.2	35 - 65	13C-1,2,3,4,7,8,9-HpCDF	80.8	40 - 135	
1,2,3,4,7,8,9-HpCDF	50.0	49.9	35 - 65	13C-OCDF	61.7	40 - 135	
OCDF	100	99.9	70 - 130	CRS 37Cl-2,3,7,8-TCDD	76.2	40 - 135	

Analyst: JMH

Approved By: William J. Luksemburg 14-Oct-2005 10:10

Sample ID: EB-HA2-0.5		EPA Method 8290			
Client Data		Sample Data		Laboratory Data	
Name:	Calscience Environmental Laboratories	Matrix:	Soil	Lab Sample:	26743-001
Project:	05-09-0703	Sample Size:	10.28 g	QC Batch No.:	7301
Date Collected:	12-Sep-05	%Solids:	98.6	Date Analyzed DB-5:	13-Oct-05
Time Collected:	1120			Dates Analyzed DB-225:	11-Oct-05
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Labeled Standard	%R LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	ND	0.367		IS 13C-2,3,7,8-TCDD	79.7 40 - 135
1,2,3,7,8-PeCDD	0.592			13C-1,2,3,7,8-PeCDD	91.0 40 - 135
1,2,3,4,7,8-HxCDD	ND		0.585	13C-1,2,3,4,7,8-HxCDD	95.8 40 - 135
1,2,3,6,7,8-HxCDD	2.46			13C-1,2,3,6,7,8-HxCDD	92.5 40 - 135
1,2,3,7,8,9-HxCDD	2.38			13C-1,2,3,4,6,7,8-HpCDD	82.3 40 - 135
1,2,3,4,6,7,8-HpCDD	19.0			13C-OCDD	39.6 40 - 135 H
OCDD	115			13C-2,3,7,8-TCDF	79.3 40 - 135
2,3,7,8-TCDF	2.14			13C-1,2,3,7,8-PeCDF	86.3 40 - 135
1,2,3,7,8-PeCDF	2.13			13C-2,3,4,7,8-PeCDF	86.1 40 - 135
2,3,4,7,8-PeCDF	3.42			13C-1,2,3,4,7,8-HxCDF	98.2 40 - 135
1,2,3,4,7,8-HxCDF	2.41			13C-1,2,3,6,7,8-HxCDF	101 40 - 135
1,2,3,6,7,8-HxCDF	2.86			13C-2,3,4,6,7,8-HxCDF	96.3 40 - 135
2,3,4,6,7,8-HxCDF	2.99			13C-1,2,3,7,8,9-HxCDF	90.6 40 - 135
1,2,3,7,8,9-HxCDF	0.914			13C-1,2,3,4,6,7,8-HpCDF	82.6 40 - 135
1,2,3,4,6,7,8-HpCDF	8.75			13C-1,2,3,4,7,8,9-HpCDF	86.2 40 - 135
1,2,3,4,7,8,9-HpCDF	0.638			13C-OCDF	52.4 40 - 135
OCDF	5.15			CRS 37Cl-2,3,7,8-TCDD	81.9 40 - 135
Totals					
Toxic Equivalent Quotient (TEQ) Data ^e					
Total TCDD	18.8			TEQ (Min):	4.13
Total PeCDD	18.2			a. Sample specific estimated detection limit. b. Estimated maximum possible concentration. c. Method detection limit. d. Lower control limit - upper control limit. e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).	
Total HxCDD	26.2		26.7		
Total HpCDD	37.5				
Total TCDF	57.5				
Total PeCDF	38.1		39.1		
Total HxCDF	27.3				
Total HpCDF	14.0				

Analyst: JMH

Approved By:

William J. Luksemburg 14-Oct-2005 10:10

Sample ID: EB-B6-7.0				EPA Method 8290			
Client Data		Sample Data		Laboratory Data			
Name:	Calscience Environmental Laboratorie	Matrix:	Soil	Lab Sample:	26743-002	Date Received:	27-Sep-05
Project:	05-09-0703	Sample Size:	11.48 g	QC Batch No.:	7301	Date Extracted:	7-Oct-05
Date Collected:	12-Sep-05	%Solids:	89.4	Date Analyzed DB-5:	10-Oct-05	Dates Analyzed DB-225:	11-Oct-05
Time Collected:	1244						
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	16.8				IS 13C-2,3,7,8-TCDD	80.4	40 - 135
1,2,3,7,8-PeCDD	52.2				13C-1,2,3,7,8-PeCDD	93.1	40 - 135
1,2,3,4,7,8-HxCDD	52.2				13C-1,2,3,4,7,8-HxCDD	103	40 - 135
1,2,3,6,7,8-HxCDD	87.8				13C-1,2,3,6,7,8-HxCDD	115	40 - 135
1,2,3,7,8,9-HxCDD	64.7				13C-1,2,3,4,6,7,8-HpCDD	85.7	40 - 135
1,2,3,4,6,7,8-HpCDD	736				13C-OCDD	48.0	40 - 135
OCDD	2960				13C-2,3,7,8-TCDF	76.9	40 - 135
2,3,7,8-TCDF	222				13C-1,2,3,7,8-PeCDF	79.0	40 - 135
1,2,3,7,8-PeCDF	247				13C-2,3,4,7,8-PeCDF	88.2	40 - 135
2,3,4,7,8-PeCDF	498				13C-1,2,3,4,7,8-HxCDF	130	40 - 135
1,2,3,4,7,8-HxCDF	391				13C-1,2,3,6,7,8-HxCDF	134	40 - 135
1,2,3,6,7,8-HxCDF	342			D	13C-2,3,4,6,7,8-HxCDF	122	40 - 135
2,3,4,6,7,8-HxCDF	487				13C-1,2,3,7,8,9-HxCDF	95.8	40 - 135
1,2,3,7,8,9-HxCDF	35.7				13C-1,2,3,4,6,7,8-HpCDF	90.9	40 - 135
1,2,3,4,6,7,8-HpCDF	1440				13C-1,2,3,4,7,8,9-HpCDF	86.8	40 - 135
1,2,3,4,7,8,9-HpCDF	84.2				13C-OCDF	62.0	40 - 135
OCDF	442				CRS 37Cl-2,3,7,8-TCDD	83.6	40 - 135
Toxic Equivalent Quotient (TEQ) Data ^e							
Totals				TEQ (Min): 499			
Total TCDD	1820	a. Sample specific estimated detection limit.					
Total PeCDD	1890	b. Estimated maximum possible concentration.					
Total HxCDD	2550	c. Method detection limit.					
Total HpCDD	1540	d. Lower control limit - upper control limit.					
Total TCDF	7750	e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).					
Total PeCDF	5540						
Total HxCDF	4100						
Total HpCDF	2020						

Analyst: JMH

Approved By: William J. Luksemburg 14-Oct-2005 10:10

Sample ID: EB-B8-15.0				EPA Method 8290			
Client Data		Calscience Environmental Laboratorie		Sample Data		Laboratory Data	
Name:	05-09-0703	Matrix:	Soil	Lab Sample:	26743-003	Date Received:	27-Sep-05
Project:	12-Sep-05	Sample Size:	10.55 g	QC Batch No.:	7301	Date Extracted:	7-Oct-05
Date Collected:	1408	%Solids:	94.5	Date Analyzed DB-5:	10-Oct-05	Dates Analyzed DB-225:	11-Oct-05
Time Collected:							
Analyte	Conc. (pg/g)	DL ^a	EMPC ^b	Qualifiers	Labeled Standard	%R	LCL-UCL ^d Qualifiers
2,3,7,8-TCDD	5.41				IS 13C-2,3,7,8-TCDD	83.9	40 - 135
1,2,3,7,8-PeCDD	9.99				13C-1,2,3,7,8-PeCDD	87.6	40 - 135
1,2,3,4,7,8-HxCDD	5.91				13C-1,2,3,4,7,8-HxCDD	97.1	40 - 135
1,2,3,6,7,8-HxCDD	17.3				13C-1,2,3,6,7,8-HxCDD	98.8	40 - 135
1,2,3,7,8,9-HxCDD	13.4				13C-1,2,3,4,6,7,8-HpCDD	71.3	40 - 135
1,2,3,4,6,7,8-HpCDD	186				13C-OCDD	46.7	40 - 135
OCDD	723				13C-2,3,7,8-TCDF	79.8	40 - 135
2,3,7,8-TCDF	114				13C-1,2,3,7,8-PeCDF	78.6	40 - 135
1,2,3,7,8-PeCDF	64.2				13C-2,3,4,7,8-PeCDF	82.8	40 - 135
2,3,4,7,8-PeCDF	135				13C-1,2,3,4,7,8-HxCDF	102	40 - 135
1,2,3,4,7,8-HxCDF	54.5				13C-1,2,3,6,7,8-HxCDF	108	40 - 135
1,2,3,6,7,8-HxCDF	54.3				13C-2,3,4,6,7,8-HxCDF	107	40 - 135
2,3,4,6,7,8-HxCDF	76.4				13C-1,2,3,7,8,9-HxCDF	94.1	40 - 135
1,2,3,7,8,9-HxCDF	2.83				13C-1,2,3,4,6,7,8-HpCDF	79.7	40 - 135
1,2,3,4,6,7,8-HpCDF	173				13C-1,2,3,4,7,8,9-HpCDF	77.7	40 - 135
1,2,3,4,7,8,9-HpCDF	8.96				13C-OCDF	60.1	40 - 135
OCDF	61.9				CRS 37Cl-2,3,7,8-TCDD	86.7	40 - 135
Totals				Toxic Equivalent Quotient (TEQ) Data ^e			
Total TCDD	175				TEQ (Min):	119	
Total PeCDD	166				a. Sample specific estimated detection limit.		
Total HxCDD	217				b. Estimated maximum possible concentration.		
Total HpCDD	327				c. Method detection limit.		
Total TCDF	2480				d. Lower control limit - upper control limit.		
Total PeCDF	1390			D	e. Toxic Equivalent Quotient (TEQ) based on International Toxic Equivalent Factors (ITEF).		
Total HxCDF	673						
Total HpCDF	251						

Analyst: JMH

Approved By:

William J. Luksemburg

14-Oct-2005 10:10



APPENDIX



DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	The amount reported is the maximum possible concentration due to possible chlorinated diphenylether interference.
E	The reported value exceeds the calibration range of the instrument.
H	The signal-to-noise ratio is greater than 10:1.
I	Chemical interference
J	The amount detected is below the Lower Calibration Limit of the instrument.
*	See Cover Letter
Conc.	Concentration
DL	Sample-specific estimated Detection Limit
MDL	The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in the matrix tested.
EMPC	Estimated Maximum Possible Concentration
NA	Not applicable
RL	Reporting Limit – concentrations that corresponds to low calibration point
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.



CERTIFICATIONS

Accrediting Authority	Certificate Number
State of Alaska, DEC	CA413-02
State of Arizona	AZ0639
State of Arkansas, DEQ	05-013-0
State of Arkansas, DOH	Reciprocity through CA
State of California – NELAP Primary AA	02102CA
State of Colorado	
State of Connecticut	PH-0182
State of Florida, DEP	E87777
Commonwealth of Kentucky	90063
State of Louisiana, Health and Hospitals	LA050001
State of Louisiana, DEQ	01977
State of Maine	CA0413
State of Michigan	81178087
State of Mississippi	Reciprocity through CA
Naval Facilities Engineering Service Center	
State of Nevada	CA413
State of New Jersey	CA003
State of New Mexico	Reciprocity through CA
State of New York, DOH	11411
State of North Carolina	06700
State of North Dakota, DOH	R-078
State of Oklahoma	D9919
State of Oregon	CA200001-002
State of Pennsylvania	68-00490
State of South Carolina	87002001
State of Tennessee	02996
State of Texas	TX247-2005A
U.S. Army Corps of Engineers	
State of Utah	9169330940
Commonwealth of Virginia	00013
State of Washington	C1285
State of Wisconsin	998036160
State of Wyoming	8TMS-Q

STANDARD OPERATING PROCEDURE

Attachment 10.B.1

SAMPLE LOG-IN CHECKLIST

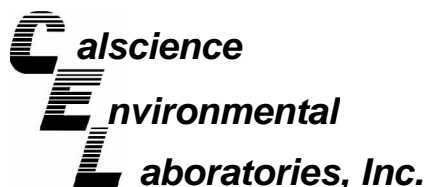
ALTA Project No.: 26743

1. Date Samples Arrived:	<u>9/27/05</u>	<u>1220</u>	Initials:	<u>YLB</u>	Location:	<u>WR-2</u>
2. Time / Date logged in:	<u>1450</u>	<u>9/27/05</u>	Initials:	<u>YLB</u>	Location:	<u>WR-2</u>
3. Samples Arrived By: (circle)	<u>FedEx</u>	UPS	World Courier	Other:		
4. Shipping Preservation: (circle)	<u>Ice</u>	Blue Ice	Dry Ice	None	Temp °C	<u>2.5</u>
5. Shipping Container(s) Intact? If not, describe condition in comment section.		YES	NO	NA		
6. Shipping Container(s) Custody Seals Present? Intact? If not intact, describe condition in comment section.			✓			
7. Shipping Documentation Present? (circle) Shipping Label Tracking Number <u>853504315315</u>		✓				
8. Sample Custody Seal(s) Present? No. of Seals _____ or Seal No. Intact? If not intact, describe condition in comment section.			✓			
9. Sample Container Intact? If no, indicate sample condition in comment section.		✓				
10. Chain of Custody (COC) or other Sample Documentation Present?		✓				
11. COC/Documentation Acceptable? If no, complete COC Anomaly Form.		✓				
12. Shipping Container (circle): ALTA <u>Client</u> Retain or <u>Return</u> or Disposed						
13. Container(s) and/or Bottle(s) Requested?			✓			
14. Drinking Water Sample? (HRMS Only) If yes, Acceptable Preservation? Y or N Preservation Info From? (circle) COC or Sample Container or None Noted						✓

Comments:

ALTA Analytical Laboratory
El Dorado Hills, CA 95762

SOP# CH10B_R18, Page 6 of 12



September 23, 2005

Ed Zielanski
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Subject: **Calscience Work Order No.: 05-09-0995**
Client Reference: **Encinitas I Burnsite / SC0311**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/16/2005 and analyzed in accordance with the attached chain-of-custody.

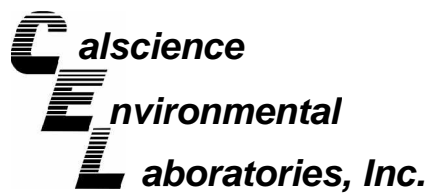
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP1-1.0	05-09-0995-1	09/14/05	Solid	09/19/05	09/19/05	050919L02

Parameter	Result	RL	DF	Qual	Units
Lead	18.9	0.5	1		mg/kg

EB-TP1-4.0	05-09-0995-2	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	59.5	0.5	1		mg/kg

EB-TP1-17.0	05-09-0995-3	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	3.25	0.5	1		mg/kg

EB-TP2-1.0	05-09-0995-4	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	143	0.500	1		mg/kg

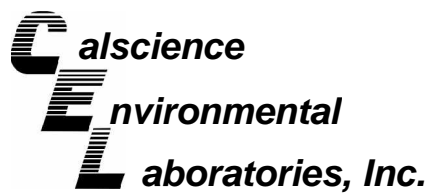
EB-TP2-4.5	05-09-0995-5	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	26.8	0.5	1		mg/kg

EB-TP2-13.5	05-09-0995-6	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	3.25	0.5	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP3-1.0	05-09-0995-7	09/14/05	Solid	09/19/05	09/19/05	050919L02

Parameter	Result	RL	DF	Qual	Units
Lead	44.7	0.5	1		mg/kg

EB-TP3-6.0	05-09-0995-8	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	175	0.500	1		mg/kg

EB-TP4-1.0	05-09-0995-9	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	22.0	0.5	1		mg/kg

EB-TP4-4.0	05-09-0995-10	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	98.7	0.5	1		mg/kg

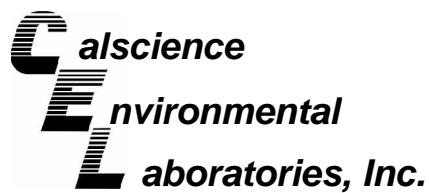
EB-TP4-19.0	05-09-0995-11	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	4.61	0.5	1		mg/kg

EB-BIN-1A, 1B	05-09-0995-16	09/14/05	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	251	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 3 of 3

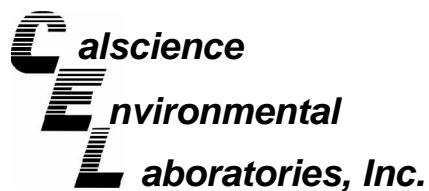
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-BIN-2A, 2B	05-09-0995-17	09/14/05	Solid	09/19/05	09/19/05	050919L02

Parameter	Result	RL	DF	Qual	Units
Lead	92.7	0.5	1		mg/kg

Method Blank	097-01-002-6,828	N/A	Solid	09/19/05	09/19/05	050919L02
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Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995

Project: Encinitas I Burnsite / SC0311

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP1-1.0	05-09-0995-1	09/14/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP1-4.0	05-09-0995-2	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.84	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP1-17.0	05-09-0995-3	09/14/05	Solid
-------------	--------------	----------	-------

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.94	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

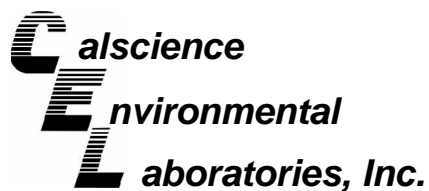
EB-TP2-1.0	05-09-0995-4	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.97	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP2-4.5	05-09-0995-5	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.5	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995

Project: Encinitas I Burnsite / SC0311

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP2-13.5	05-09-0995-6	09/14/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.69	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP3-1.0	05-09-0995-7	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	6.92	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP3-6.0	05-09-0995-8	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.76	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

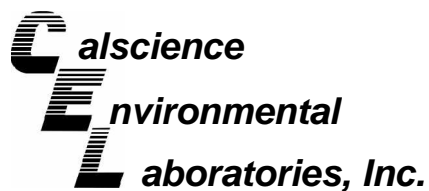
EB-TP4-1.0	05-09-0995-9	09/14/05	Solid
------------	--------------	----------	-------

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-TP4-4.0	05-09-0995-10	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	8.49	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995

Project: Encinitas I Burnsite / SC0311

Page 3 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
EB-TP4-19.0	05-09-0995-11	09/14/05	Solid

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	4.55	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

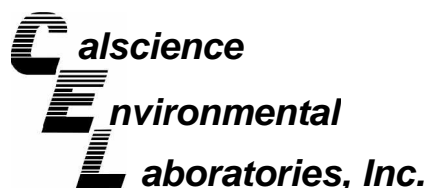
EB-BIN-1A, 1B	05-09-0995-16	09/14/05	Solid
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.27	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

EB-BIN-2A, 2B	05-09-0995-17	09/14/05	Solid
---------------	---------------	----------	-------

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
pH	7.57	0.01	1		pH unit	09/20/05	09/20/05	EPA 9045C

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

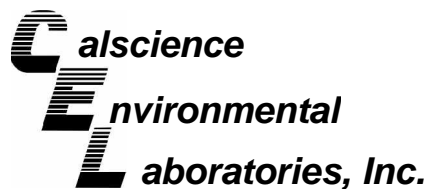
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3050B
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB-TP4-1.0	Solid	ICP 3300	09/19/05	09/19/05	050919S02

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	75	92	75-125	10	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0995

Project: Encinitas I Burnsite / SC0311

Matrix: Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
pH	EPA 9045C	EB-TP1-1.0	09/20/05	7	6.98	0	0-25	
pH	EPA 9045C	05-09-0996-1	09/20/05	6.34	6.35	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit

A handwritten signature in black ink, appearing to be 'M. J. ...'.


Environmental
Laboratories, Inc.
Quality Control - Laboratory Control Sample


GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 3050B
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-6,828	Solid	ICP 3300	09/19/05	050919-I-02	050919L02

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	25.0	26.7	107	80-120	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 . TEL:(714) 895-5494 . FAX: (714) 894-7501

Glossary of Terms and Qualifiers



Work Order Number: 05-09-0995

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



Document Number: 1406

Analysis Request and Chain of Custody Record

Project Name Enxinites I Bunsite	Project Number SC0311	Required Analyses						
Samplers Names C. Gole	Project Contact Ed Zielinski	VOCs by 8260B*	Metals Pb	SVOCs by 8270	PCBs by 8082*	PAHs by 8310*	TPH by 8015*	Dioxins by 828*
Laboratory Name Cal Science	Lab Contact Steve Nomanak							
Lab Address 7440 Lincoln Way	Lab Phone (714) 895-5494							
Garden Grove CA	Carrier/Waybill No. Pick-up							

White copy: to accompany samples
Yellow copy: field copy

Page 1 of 2

Sample Name	Date	Time	Sample Type	Bottle Type and Volume/Preservative										Comments	Lab Use Only	Condition of Bottles
				Number of Containers												
				Hold	X	Total	X	Hold	Hold	Hold	Hold	Hold	Hold		Hold	
EB-TP1-1.0	9/14/05	0800	Soil		X	9/14/05	X									
EB-TP1-4.0		0805	Soil		X	9/14/05	X									
EB-TP1-17.0		0835			X		X									
EB-TP2-1.0		0920			X		X									
EB-TP2-4.5		0925			X		X									
EB-TP2-13.5		0940			X		X									
EB-TP3-1.0		1025			X		X									
EB-TP3-6.0		1030			X		X									
EB-TP4-1.0		1550			X		X									
EB-TP4-4.0		1555			X		X									
EB-TP4-19.0		1625			X		X									
EB-BIN-1A**		1640			X		X									

Turn-around Time:

☐ Normal ☐ Rush:

Special Instructions: **make composite of 1A and 1B samples as well as Bin-2A and Bin-2B

1. Relinquished by (Signature/Affiliation)	Date 9/16/05	1. Received by (Signature/Affiliation)	Date 9/16/05
2. Relinquished by (Signature/Affiliation)	Date 9/16/05	2. Received by (Signature/Affiliation)	Date 9/16/05
3. Relinquished by (Signature/Affiliation)	Date 9/16/05	3. Received by (Signature/Affiliation)	Date 9/16/05

0995

1406

Project Name	Encinitas Burn Site
Project Number	80311

20311

Encinitas Burn Site

VOCs by 8270	8270
Metals Pb	8270
SVOCs by 8270	8270
PH	8270
PBS by 8082 *	8082 *
PATHS by 8310 *	8310 *
TPH by 805 *	805 *
DICKINS *	8270
Furnaby 8270	8270

91

4d

DI E3
ka

115

±

Bottle Type and Volume/Preservative

Sample Type

13	EB-Bin-1B**
14	EB-Bin-2A**
15	EB-Bin-2B**

9/14/05	1640
	1650
	1650

Soil	1
------	---

X	x	x
old	1	

X	Hold	Hold	Hold	Hold
X				
X	1	1	1	1
X				

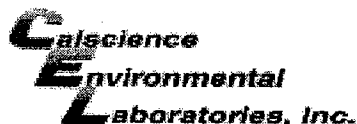
Number of Containers

**Lab Use
Only**

Condition of Bottles

Comments

White copy: to accompany samples
Yellow copy: field copy



WORK ORDER #:

05 - 09 - 0995

Cooler 1 of 1**SAMPLE RECEIPT FORM**

CLIENT:

Geosyntec

DATE:

9/16/13**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**☐ Chilled, cooler with temperature blank provided.☐ Chilled, cooler without temperature blank.☒ Chilled and placed in cooler with wet ice.☐ Ambient and placed in cooler with wet ice.☐ Ambient temperature.3.4 ☐ °C Temperature blank.**LABORATORY (Other than Calscience Courier):**☐ °C Temperature blank.☐ °C IR thermometer.☐ Ambient temperature.

Initial:

CUSTODY SEAL INTACT:

Sample(s): _____

Cooler: _____

No (Not Intact) : _____

Not Applicable (N/A): ✓

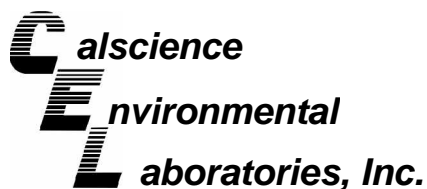
Initial:

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial:

COMMENTS:



Supplemental Report 1

September 30, 2005

Ed Zielanski
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Subject: **Calscience Work Order No.: 05-09-0995**
Client Reference: **Encinitas I Burnsite / SC0311**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/16/2005 and analyzed in accordance with the attached chain-of-custody.

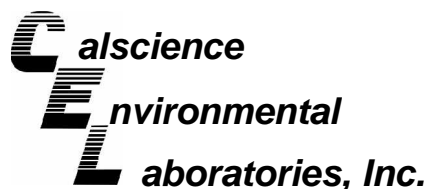
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3550B
Method: TPH - Carbon Range
Units: mg/kg

Project: Encinitas I Burnsite / SC0311

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP3-6.0	05-09-0995-8	09/14/05	Solid	09/23/05	09/25/05	050923B10

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
C7	ND		1		C21-C22	5.6		1	
C8	ND		1		C23-C24	3.5		1	
C9-C10	ND		1		C25-C28	15		1	
C11-C12	0.031		1		C29-C32	14		1	
C13-C14	0.55		1		C33-C36	20		1	
C15-C16	2.2		1		C37-C40	4.8		1	
C17-C18	3.6		1		C41-C44	12		1	
C19-C20	2.5		1		C7-C44 Total	84	5	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decachlorobiphenyl	92	62-152							

Method Blank	098-03-002-4,849	N/A	Solid	09/23/05	09/24/05	050923B10
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Parameter	Result	RL	DF	Qual
TPH as Diesel	ND	5.0	1	
Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	105	62-152		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0995
 Preparation: EPA 3545
 Method: EPA 8310
 Units: ug/kg

Project: Encinitas I Burnsite / SC0311

Page 1 of 1

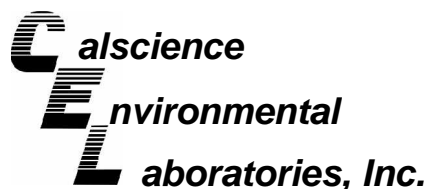
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP3-6.0	05-09-0995-8	09/14/05	Solid	09/26/05	09/30/05	050926L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	77	40-160							

Method Blank	099-07-002-577	N/A	Solid	09/26/05	09/27/05	050926L01
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Naphthalene	ND	50	1		Benzo (a) Anthracene	ND	50	1	
Acenaphthylene	ND	50	1		Chrysene	ND	50	1	
Acenaphthene	ND	50	1		Benzo (b) Fluoranthene	ND	50	1	
Fluorene	ND	50	1		Benzo (k) Fluoranthene	ND	50	1	
Phenanthrene	ND	50	1		Benzo (a) Pyrene	ND	50	1	
Anthracene	ND	50	1		Dibenz (a,h) Anthracene	ND	50	1	
Fluoranthene	ND	50	1		Benzo (g,h,i) Perylene	ND	50	1	
Pyrene	ND	50	1		Indeno (1,2,3-c,d) Pyrene	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual					
Decafluorobiphenyl	76	40-160							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: Encinitas I Burnsite / SC0311

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP3-6.0	05-09-0995-8	09/14/05	Solid	09/26/05	09/29/05	050926L11

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	65	50-130			2,4,5,6-Tetrachloro-m-Xylene	64	50-130		

Method Blank	099-07-009-715	N/A	Solid	09/26/05	09/27/05	050926L11
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aroclor-1016	ND	50	1		Aroclor-1248	ND	50	1	
Aroclor-1221	ND	50	1		Aroclor-1254	ND	50	1	
Aroclor-1232	ND	50	1		Aroclor-1260	ND	50	1	
Aroclor-1242	ND	50	1		Aroclor-1262	ND	50	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Decachlorobiphenyl	82	50-130			2,4,5,6-Tetrachloro-m-Xylene	80	50-130		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0995
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

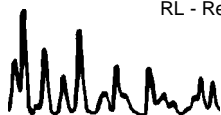
Project: Encinitas I Burnsite / SC0311

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-TP3-6.0	05-09-0995-8	09/14/05	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	100	73-139			1,2-Dichloroethane-d4	104	73-145		
Toluene-d8	99	90-108			1,4-Bromofluorobenzene	82	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: 09/16/05
 Work Order No: 05-09-0995
 Preparation: EPA 5030B
 Method: EPA 8260B
 Units: ug/kg

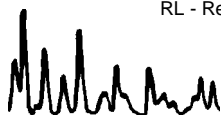
Project: Encinitas I Burnsite / SC0311

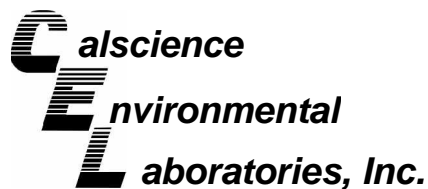
Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	099-10-005-11,216	N/A	Solid	09/24/05	09/24/05	050924L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	50	1		1,3-Dichloropropane	ND	5.0	1	
Benzene	ND	5.0	1		2,2-Dichloropropane	ND	5.0	1	
Bromobenzene	ND	5.0	1		1,1-Dichloropropene	ND	5.0	1	
Bromochloromethane	ND	5.0	1		c-1,3-Dichloropropene	ND	5.0	1	
Bromodichloromethane	ND	5.0	1		t-1,3-Dichloropropene	ND	5.0	1	
Bromoform	ND	5.0	1		Ethylbenzene	ND	5.0	1	
Bromomethane	ND	25	1		2-Hexanone	ND	50	1	
2-Butanone	ND	50	1		Isopropylbenzene	ND	5.0	1	
n-Butylbenzene	ND	5.0	1		p-Isopropyltoluene	ND	5.0	1	
sec-Butylbenzene	ND	5.0	1		Methylene Chloride	ND	50	1	
tert-Butylbenzene	ND	5.0	1		4-Methyl-2-Pentanone	ND	50	1	
Carbon Disulfide	ND	50	1		Naphthalene	ND	50	1	
Carbon Tetrachloride	ND	5.0	1		n-Propylbenzene	ND	5.0	1	
Chlorobenzene	ND	5.0	1		Styrene	ND	5.0	1	
Chloroethane	ND	5.0	1		1,1,1,2-Tetrachloroethane	ND	5.0	1	
Chloroform	ND	5.0	1		1,1,2,2-Tetrachloroethane	ND	5.0	1	
Chloromethane	ND	25	1		Tetrachloroethene	ND	5.0	1	
2-Chlorotoluene	ND	5.0	1		Toluene	ND	5.0	1	
4-Chlorotoluene	ND	5.0	1		1,2,3-Trichlorobenzene	ND	10	1	
Dibromochloromethane	ND	5.0	1		1,2,4-Trichlorobenzene	ND	5.0	1	
1,2-Dibromo-3-Chloropropane	ND	10	1		1,1,1-Trichloroethane	ND	5.0	1	
1,2-Dibromoethane	ND	5.0	1		1,1,2-Trichloroethane	ND	5.0	1	
Dibromomethane	ND	5.0	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1	
1,2-Dichlorobenzene	ND	5.0	1		Trichloroethene	ND	5.0	1	
1,3-Dichlorobenzene	ND	5.0	1		1,2,3-Trichloropropane	ND	5.0	1	
1,4-Dichlorobenzene	ND	5.0	1		1,2,4-Trimethylbenzene	ND	5.0	1	
Dichlorodifluoromethane	ND	5.0	1		Trichlorofluoromethane	ND	50	1	
1,1-Dichloroethane	ND	5.0	1		1,3,5-Trimethylbenzene	ND	5.0	1	
1,2-Dichloroethane	ND	5.0	1		Vinyl Acetate	ND	50	1	
1,1-Dichloroethene	ND	5.0	1		Vinyl Chloride	ND	5.0	1	
c-1,2-Dichloroethene	ND	5.0	1		p/m-Xylene	ND	5.0	1	
t-1,2-Dichloroethene	ND	5.0	1		o-Xylene	ND	5.0	1	
1,2-Dichloropropane	ND	5.0	1		Methyl-t-Butyl Ether (MTBE)	ND	5.0	1	
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	105	73-139			1,2-Dichloroethane-d4	109	73-145		
Toluene-d8	98	90-108			1,4-Bromofluorobenzene	86	71-113		

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

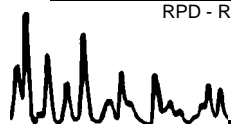
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3550B
Method: TPH - Carbon Range

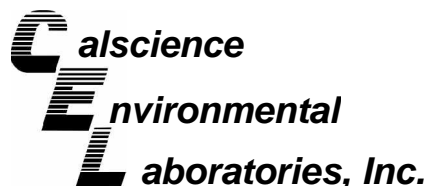
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-0703-17	Solid	GC 15	09/23/05	09/25/05	050923S10

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	81	86	71-125	5	0-12	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

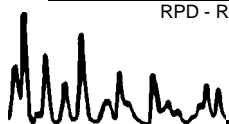
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3545
Method: EPA 8310

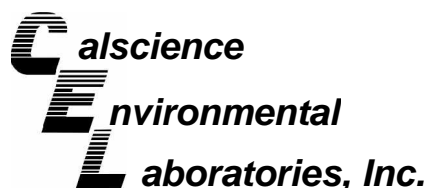
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1326-1	Solid	HPLC 5	09/26/05	09/27/05	050926S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	71	86	40-160	20	0-20	
Benzo (k) Fluoranthene	73	86	40-160	16	0-20	
Benzo (a) Pyrene	74	92	40-160	22	0-20	4
Dibenz (a,h) Anthracene	61	89	40-160	37	0-20	4
Benzo (g,h,i) Perylene	61	87	40-160	35	0-20	4
Indeno (1,2,3-c,d) Pyrene	61	75	40-160	20	0-20	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

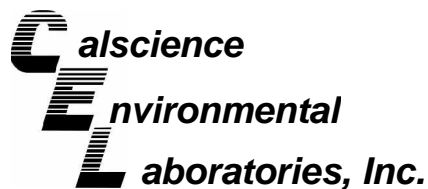
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 3545
Method: EPA 8082

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-09-1334-16	Solid	GC 10	09/26/05	09/27/05	050926S11

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	98	83	50-135	17	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

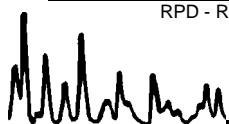
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 5030B
Method: EPA 8260B

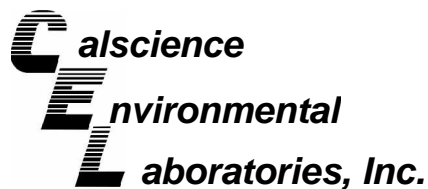
Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB-TP3-6.0	Solid	GC/MS W	09/24/05	09/24/05	050924S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	86	84	79-115	3	0-13	
Carbon Tetrachloride	87	86	55-139	1	0-15	
Chlorobenzene	75	67	79-115	12	0-17	3
1,2-Dichlorobenzene	58	46	63-123	23	0-23	3
1,1-Dichloroethene	89	87	69-123	2	0-16	
Toluene	80	75	79-115	7	0-15	3
Trichloroethene	85	78	66-144	8	0-14	
Vinyl Chloride	93	93	60-126	0	0-14	
Methyl-t-Butyl Ether (MTBE)	83	87	68-128	5	0-14	
Tert-Butyl Alcohol (TBA)	71	86	44-134	19	0-37	
Diisopropyl Ether (DIPE)	85	87	75-123	2	0-12	
Ethyl-t-Butyl Ether (ETBE)	82	85	75-117	3	0-12	
Tert-Amyl-Methyl Ether (TAME)	90	91	79-115	1	0-12	
Ethanol	71	84	42-138	17	0-28	

RPD - Relative Percent Difference , CL - Control Limit





Quality Control - LCS/LCS Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

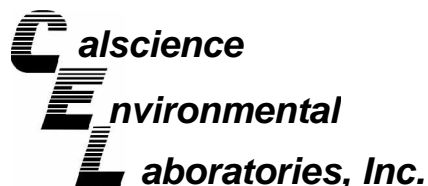
Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 3550B
Method: TPH - Carbon Range

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
098-03-002-4,849	Solid	GC 15	09/23/05	09/25/05	050923B10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	103	102	71-119	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



GeoSyntec Consultants
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San Diego, CA 92127-1461

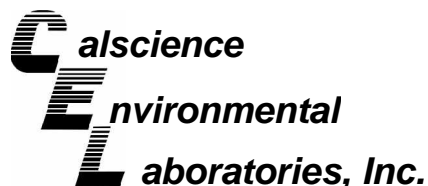
Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 3545
Method: EPA 8310

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-002-577	Solid	HPLC 5	09/26/05	09/27/05	050926L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzo (b) Fluoranthene	119	101	40-160	17	0-20	
Benzo (k) Fluoranthene	125	106	40-160	16	0-20	
Benzo (a) Pyrene	131	111	40-160	16	0-20	
Dibenz (a,h) Anthracene	122	104	40-160	15	0-20	
Benzo (g,h,i) Perylene	126	109	40-160	14	0-20	
Indeno (1,2,3-c,d) Pyrene	118	98	40-160	19	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

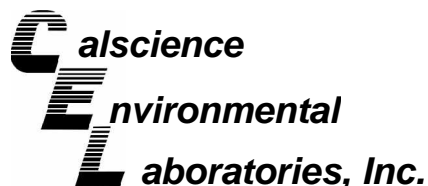
Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 3545
Method: EPA 8082

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-07-009-715	Solid	GC 10	09/26/05	09/27/05	050926L11

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Aroclor-1260	99	102	50-135	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 5030B
Method: EPA 8260B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-005-11,216	Solid	GC/MS W	09/24/05	09/24/05	050924L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	90	93	84-114	3	0-7	
Carbon Tetrachloride	98	100	66-132	2	0-12	
Chlorobenzene	99	103	87-111	4	0-7	
1,2-Dichlorobenzene	105	108	79-115	2	0-8	
1,1-Dichloroethene	94	97	73-121	3	0-12	
Toluene	91	93	78-114	2	0-7	
Trichloroethene	94	98	84-114	3	0-8	
Vinyl Chloride	99	99	63-129	0	0-15	
Methyl-t-Butyl Ether (MTBE)	85	87	77-125	3	0-11	
Tert-Butyl Alcohol (TBA)	80	89	47-137	11	0-27	
Diisopropyl Ether (DIPE)	89	91	76-130	2	0-8	
Ethyl-t-Butyl Ether (ETBE)	87	88	76-124	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	92	95	82-118	4	0-11	
Ethanol	78	86	59-131	11	0-21	

RPD - Relative Percent Difference , CL - Control Limit

Glossary of Terms and Qualifiers



Work Order Number: 05-09-0995

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



Stephen Nowak

From: CGale@GeoSyntec.com
Sent: Friday, September 23, 2005 4:13 PM
To: Stephen Nowak
Subject: RE: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

Steve,
Please run the following for VOCs by 8260, PCBs by 8082, TPH by 8015,
and PAHs by 8310:

From Calscience work order # 05-09-0703
EB-B5-5.5
EB-B6-7.0
EB-B7-5.0
EB-B8-15.0

From Calscience work order # 05-09-0995
EB-TP3-6.0

From Calscience work order # 05-09-0996
EB-TP6-6.0
EB-TP5-4.0

Also please run the following for Dioxins and furans by 8290:

From Calscience work order # 05-09-0703
EB-B6-7.0
EB-B8-15.0
EB-HA2-0.5

From Calscience work order # 05-09-0996

EB-TP6-1.0

Thanks,

Chris Gale
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127
Office: 858-674-6559
Mobile: 858-229-4322
Fax: 858-674-6586
www.geosyntec.com

-----Original Message-----

From: Stephen Nowak [mailto:SNowak@calscience.com]
Sent: Friday, September 23, 2005 3:17 PM
To: Christopher Gale
Subject: Encinitas I Burnsite / SC0311 / CEL 05-09-0996

<<05090996.xls>> <<05-09-0996.pdf>>

Chris - The sample I don't have data for yet is EB-TP6-8.5.
I'm trying to get it done today.

Document Number: 1406

Analysis Request and Chain of Custody Record

Project Name Enxinites I Bunsite	Project Number SC0311	Required Analyses *							
Samplers Names C. Golek	Project Contact Ed Zielinski	VOCs by 8260B *	Metals Pb	SVOCs by 8270	PCBs by 8082 *	PAHs by 8310 *	TPH by 8015 *	Dioxins by 8280 *	
Laboratory Name Cal Science	Lab Contact Steve Nomanak								
Lab Address 7440 Lincoln Way Garden Grove CA	Lab Phone (714) 895-5494								
	Carrier/Waybill No. Pick-up								
Sample Name	Date	Time	Sample Type	Bottle Type and Volume/Preservative					Number of Containers
EB-TP1-1.0	9/14/05	0800	Soil	Hold	X	Hold	Hold	Hold	
EB-TP1-4.0	9/14/05	0805	Soil	X	X	X	X	X	
EB-TP1-17.0	9/14/05	0835		X	X	X	X	X	
EB-TP2-1.0	9/14/05	0920		X	X	X	X	X	
EB-TP2-4.5	9/14/05	0925		X	X	X	X	X	
EB-TP2-13.5	9/14/05	0940		X	X	X	X	X	
EB-TP3-1.0	9/14/05	1025		X	X	X	X	X	
EB-TP3-6.0	9/14/05	1030		X	X	X	X	X	
EB-TP4-1.0	9/14/05	1550		X	X	X	X	X	
EB-TP4-4.0	9/14/05	1555		X	X	X	X	X	
EB-TP4-19.0	9/14/05	1625		X	X	X	X	X	
EB-BIN-1A **	9/14/05	1640		X	X	X	X	X	

Turn-around Time:

☐ Normal ☐ Rush:

Special Instructions: ** make composite of 1A and 1B samples as well as Bin-2A and Bin-2B

1. Relinquished by (Signature/Affiliation)	Date 9/16/05	1. Received by (Signature/Affiliation)	Date 9/16/05
2. Relinquished by (Signature/Affiliation)	Time 1225	2. Received by (Signature/Affiliation)	Time 1225
3. Relinquished by (Signature/Affiliation)	Date 9/16/05	3. Received by (Signature/Affiliation)	Date 9/16/05
	Time 1625		Time 1625

0995

Page 2 of 2

White copy: to accompany samples
Yellow copy: field copy

[illegible]



WORK ORDER #:

05 - 09 - 0995

Cooler 1 of 1**SAMPLE RECEIPT FORM**

CLIENT:

Geosyntec

DATE:

9/16/13**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**☐ Chilled, cooler with temperature blank provided.☐ Chilled, cooler without temperature blank.☒ Chilled and placed in cooler with wet ice.☐ Ambient and placed in cooler with wet ice.☐ Ambient temperature.3.4 ☐ °C Temperature blank.**LABORATORY (Other than Calscience Courier):**☐ °C Temperature blank.☐ °C IR thermometer.☐ Ambient temperature.

Initial:

CUSTODY SEAL INTACT:

Sample(s): _____

Cooler: _____

No (Not Intact) : _____

Not Applicable (N/A): ✓

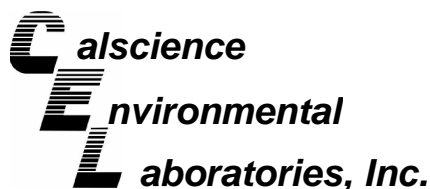
Initial:

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial:

COMMENTS:



Supplemental Report 2

October 12, 2005

Ed Zielanski
GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Subject: **Calscience Work Order No.: 05-09-0995**
Client Reference: **Encinitas I Burnsite / SC0311**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/16/2005 and analyzed in accordance with the attached chain-of-custody.

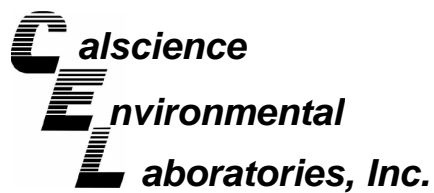
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 1311
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 1 of 1

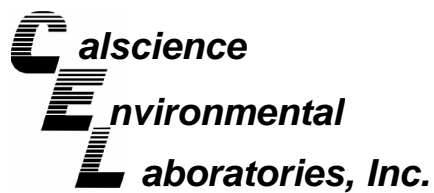
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-BIN-1A, 1B	05-09-0995-16	09/14/05	Solid	10/06/05	10/10/05	051007L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	0.414	0.1	1		mg/L

Method Blank	097-05-001-2,875	N/A	Solid	10/06/05	10/10/05	051007L01
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	ND	0.100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: CCR 66261.126
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Page 1 of 1

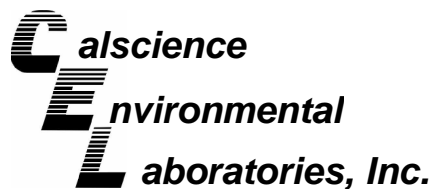
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
EB-BIN-1A, 1B	05-09-0995-16	09/14/05	Solid	10/06/05	10/11/05	051010L5

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	52.6	0.1	1		mg/L

Method Blank	097-05-006-2,897	N/A	Solid	10/06/05	10/11/05	051010L5
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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Units</u>
Lead	ND	0.100	1		mg/L

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

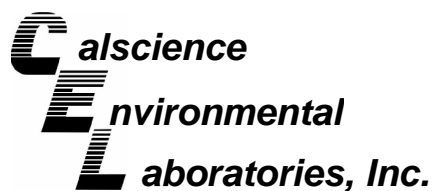
Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: EPA 1311
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0315-1	Solid	ICP 3300	10/06/05	10/10/05	051007S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	103	123	75-125	17	0-20	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - Spike/Spike Duplicate



GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: 09/16/05
Work Order No: 05-09-0995
Preparation: CCR 66261.126
Method: EPA 6010B

Project Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
05-10-0079-9	Solid	ICP 3300	10/07/05	10/11/05	051010S05

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	88	87	75-125	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit


Environmental
Laboratories, Inc.
Quality Control - Laboratory Control Sample


GeoSyntec Consultants
11305 Rancho Bernardo Road, Suite 101
San Diego, CA 92127-1461

Date Received: N/A
Work Order No: 05-09-0995
Preparation: EPA 1311
Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-05-001-2,875	Solid	ICP 3300	10/10/05	051007-I-01	051007L01

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	5.00	5.06	101	80-120	

RPD - Relative Percent Difference , CL - Control Limit



GeoSyntec Consultants
 11305 Rancho Bernardo Road, Suite 101
 San Diego, CA 92127-1461

Date Received: N/A
 Work Order No: 05-09-0995
 Preparation: CCR 66261.126
 Method: EPA 6010B

Project: Encinitas I Burnsite / SC0311

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-05-006-2,897	Solid	ICP 3300	10/11/05	051010-I-05	051010L5

<u>Parameter</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Lead	5.00	4.98	100	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Glossary of Terms and Qualifiers



Work Order Number: 05-09-0995

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.



Stephen Nowak

From: CGale@GeoSyntec.com
Sent: Wednesday, October 05, 2005 12:37 PM
To: Stephen Nowak
Subject: Encinitas Burnsite

Hi Steve,
Can you please run the following samples for STLC and TCLP Lead:

From work order 05-09-0995:
EB-BIN-1A,-1B

From work order 05-09-0996:
EB-BIN-4A,-4B

Thanks again,
Chris Gale

GeoSyntec Consultants

11305 Rancho Bernardo Road, Suite 101

San Diego, CA 92127

Office: 858-674-6559

Mobile: 858-229-4322

Fax: 858-674-6586

www.geosyntec.com

Document Number: 1406

Analysis Request and Chain of Custody Record

Project Name Enxinites I Bunsite	Project Number SC0311	Required Analyses						
Samplers Names C. Gable	Project Contact Ed Zielinski	VOCs by 8260B*	Metals Pb	SVOCs by 8270	PCBs by 8082*	PAHs by 8310*	TPH by 8015*	Dioxins by 828*
Laboratory Name Cal Science	Lab Contact Steve Nomanak							
Lab Address 7440 Lincoln Way	Lab Phone (714) 895-5494							
City/State/Zip Garden Grove CA	Carrier/Waybill No. Pick-up							

White copy: to accompany samples
Yellow copy: field copy

Page 1 of 2

Sample Name	Date	Time	Sample Type	Bottle Type and Volume/Preservative								Comments	Lab Use Only	Condition of Bottles
				VOCs by 8260B*	Metals Pb	SVOCs by 8270	PCBs by 8082*	PAHs by 8310*	TPH by 8015*	Dioxins by 828*				
EB-TP1-1.0	9/14/05	0800	Soil	X	X	X	X	X	X	X				
EB-TP1-4.0		0805	Soil	X	X	X	X	X	X	X				
EB-TP1-17.0		0835		X	X	X	X	X	X	X				
EB-TP2-1.0		0920		X	X	X	X	X	X	X				
EB-TP2-4.5		0925		X	X	X	X	X	X	X				
EB-TP2-13.5		0940		X	X	X	X	X	X	X				
EB-TP3-1.0		1025		X	X	X	X	X	X	X				
EB-TP3-6.0		1030		X	X	X	X	X	X	X				
EB-TP4-1.0		1550		X	X	X	X	X	X	X				
EB-TP4-4.0		1555		X	X	X	X	X	X	X				
EB-TP4-19.0		1625		X	X	X	X	X	X	X				
EB-BIN-1A**		1640		X	X	X	X	X	X	X				

Turn-around Time:

☐ Normal ☐ Rush:

Special Instructions: **make composite of 1A and 1B samples as well as Bin-2A and Bin-2B

1. Relinquished by (Signature/Affiliation)	Date 9/16/05	1. Received by (Signature/Affiliation)	Date 9/16/05
2. Relinquished by (Signature/Affiliation)	Date 9/16/05	2. Received by (Signature/Affiliation)	Date 9/16/05
3. Relinquished by (Signature/Affiliation)	Date 9/16/05	3. Received by (Signature/Affiliation)	Date 9/16/05

0995

Page 2 of 2

White copy: to accompany samples
Yellow copy: field copy

[illegible]



WORK ORDER #:

05 - 09 - 0995

Cooler 1 of 1**SAMPLE RECEIPT FORM**

CLIENT:

Geosyntec

DATE:

9/16/13**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**☐ Chilled, cooler with temperature blank provided.☐ Chilled, cooler without temperature blank.☒ Chilled and placed in cooler with wet ice.☐ Ambient and placed in cooler with wet ice.☐ Ambient temperature.3.4 ☐ °C Temperature blank.**LABORATORY (Other than Calscience Courier):**☐ °C Temperature blank.☐ °C IR thermometer.☐ Ambient temperature.

Initial:

CUSTODY SEAL INTACT:

Sample(s): _____

Cooler: _____

No (Not Intact) : _____

Not Applicable (N/A): ✓

Initial:

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial:

COMMENTS:
